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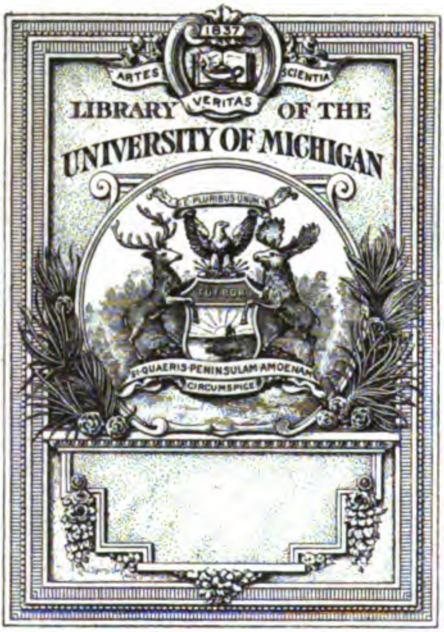

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QUA LUCEM ARTE.

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MENTAL CULTURE ON HEALTH.*

We look upon the object of both these publications, each of which we have read with much gratification, to be essentially the same; and it is an object of much importance. From various causes, which we must leave to the moral philosopher to develop, there appears to be a tendency, in various states and degrees of civilization, to over-exert the brain and nervous system, either in acts of intellect or emotion; and the condition of the most civilized portions of America and that of the most refined countries of Europe, diverse as they are, exhibit these over-exertions, each according to the actual position and circumstances of the community. In Europe, it is the intellect which is chiefly overtasked, and in America the same fault exists in a still greater degree; whilst the emotions, in one direction at least, are also generally and excessively overwrought. The struggles for maintaining existence, and the graspings of ambition call, in Europe, for exertions under which the energies of the brain give way. The peculiar circumstances of a new country, not yet abounding in social and refined enjoyments, a country vast in extent, and grand in its features, and a new community, where every thing is to be obtained by talent and industry, but where the most successful projects are often interrupted by death from pestilential influences, appear to plunge a large proportion of the population into what may be termed the excesses of devotional feeling, whilst the understanding of the young is lavishly over-exercised. It is the object of Dr. Brigham's work upon the Influence of Religion to point out these excesses, but not to discourage devotion; to show the evil consequences of fanatacism, but not to disparage a pure and simple and earnest worshipping of the Deity.

Yet we believe this attempt to detach an enthusiastic people from extravagant and hurtful customs, has brought upon the author much obloquy; as if to expose the follies which degrade religion were to discountenance piety itself.

In the history of mankind there is nothing that creates more surprise than the contemplation of the cruelties which have been practised by various nations, in every part of the globe, with a view of propitiating the Almighty. These cruelties have been, and are, partly physical and partly moral, and, although their most revolting features have disappeared, the spirit which suggested them, full of violence and unenlightened, has not yet been subdued by the milder doctrines which Butler has termed the *republication* of the morality of nature. When we read the religious history of an ancient people, or the religious wars of later ages, it is difficult to believe that we are reading the history of beings capable of humanity and justice. That men who felt themselves, in simple or savage state, dependent on some unseen power which they could not resist, should have endeavoured to propitiate that power by the same acts with which they soothed the angry passions of each other, is not to be wondered at; and if they fell into the error of believing acts of horror acceptable to that power, we derive from the fact a most useful lesson. We learn that the *uninstructed* man cannot even read the true character of the Deity; that the works of nature address their eloquent language to him in vain; that the destiny of man is obscurely beheld by him; and that it is only as he advances in knowledge that he becomes *capable* of receiving and comprehending divine truths, abandons ceremonies stained with blood, and tries to imitate the goodness which he then alone discerns in action all around him.

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* Observations on the Influence of Religion upon the Health and Physical Welfare of Mankind. By Amariah Brigham, M. D.—Boston, 1835. 8vo. pp. 331.

Remarks on the Influence of Mental Cultivation and Mental Excitement upon Health. By Amariah Brigham, M. D.—Boston, 1833. 8vo. pp. 130.

Dr. Brigham's book presents us with a brief and distinct view of much of this extraordinary part of man's history. He commences by noticing human sacrifices, as detailed by the historians of Egypt, Scythia, Persia, Greece, Rome, Gaul, Germany, and the northern nations, and by the explorers of the Eastern, Southern, and Western portions of the globe. He passes from these dreadful details to a notice of the mutilations of the body which have been, at various times and in various regions, practised with the same view of obtaining merit in the eyes of the Creator; such as circumcision, emasculation, flagellation, wounds voluntarily inflicted, and deformity (anchylosis of joints) voluntarily incurred. To the consideration of these succeeds that of the milder austerities of penance and fasting; and this review introduces reflections marked by much moderation and good sense, on the customs still prevalent which, altogether unessential to the purity, sincerity, and even earnestness of religion, bring inconvenience and suffering upon conscientious and devout persons. We have not often perused any thing more interesting than these details; the worst enormities of which, in remote periods, are attested by the customs actually existing in the South Sea Islands; and even in Hindostan; whilst the peculiar character of the superstitions of the most civilized states of America is forcibly represented to us by a witness who cannot be accused of indulging national prejudices at the expense of truth.

Among the various modes of self-torture which men and sects have at different periods assumed to be pleasing to a benevolent Creator, that of *flagellation* seems to have been not the least remarkable. The severe whippings inflicted upon the boys of Sparta, before the altar of Diana, had for their intention the propitiation of the goddess. It was reckoned honourable to make no complaint, and the victims of this superstition sometimes expired under the lash. But a more celebrated sect of *flagellants* appeared in Italy, about the middle of the 13th century: they ran about with whips in their hands, lashing themselves severely. In the next century they increased so much in numbers and turbulence that at length a holy war was declared against them; 8000 were massacred, and the remainder led away captive. Nor has such foolish cruelty been without modern imitators, and even in the state of New York; where, Dr. Brigham tells us, parents whipped their children as a religious duty, and to make them "submit themselves to God." A pious lady in Oneida county is quoted as having whipped all or most of her children by way of *bringing them in*, by which is meant *converting* them. One of them required whipping three times. A worthy of the Oneida presbytery, looked upon as a great authority in religious matters, and "whose praise is in all the churches," being asked to give his opinion of the propriety of "whipping children, to induce them to promise to give themselves to God," replied that he thought there was "much to be said in favour of it," and that children were rendered "kind and affectionate" by it. One cannot but wish that the process had been tried upon this unkind bigot himself. From a like spirit arose many of the gloomy austerities of monachism. Man was perpetually represented as a criminal, to whom cheerfulness was forbidden, and by whom gaiety and laughter were to be utterly forsworn. Sickness was courted, as natural to a Christian; and the doctrines of physicians, which taught men how to preserve health and life, were despised or condemned, as hostile to the very spirit of Christianity.

We pass over the author's remarks on Fasting, on the mode of celebrating the Lord's supper, and on Baptism; as involving many controversial questions unsuitable to our pages. With rare exceptions none of these ordinances are so practised in this country or in other countries as to affect the health, nor are they, we presume, precisely the ceremonies most likely to be practised with detriment in the United States. But the subject of Dr. Brigham's [illegible] chapter will, we hope, attract attention among his countrymen; comprehending as it does, a consideration of the places of worship, and the night meetings and camp-meetings held among the Americans.

"There is not perhaps anything more beautiful in the scenery of New England, than the churches and spires that are seen in almost every town. They are generally built of wood, painted white, and impress the traveller with favourable ideas of the order and piety of the inhabitants around. I wish I could say that these churches are as comfortable for worshippers, as they are beautiful to the observer; but in truth they are not. In general they are poorly built, and badly keep out the cold of winter and the heat of summer. The seats, usually unsupplied with cushions, are very uncomfortable places to remain in, even for two or three hours. Many of these churches are placed upon the tops of hills, where they are exposed to the violence of wind and cold, unprotected by woods or rising grounds. They have neither inside nor outside shutters to the windows, and as they are greatly lighted, the heat of a summer's sun is exceedingly oppressive.

"But this can be better endured than the cold of winter. Within a very few years, however, this evil has been greatly lessened, and many churches have had stoves placed in them, and are partially warmed; but, even now, I presume one quarter of the churches in New England, in the country towns, are destitute of any means of being warmed, and those thus unsupplied are the churches situated in the most bleak and cold places in the country. The suffering from this cause is great, and many lives, I have no doubt, have been sacrificed in consequence." (P. 139.)

The churches of our own country are not exempt from some of these inconveniences. They are ill ventilated, very cold in winter, and very oppressive in summer; and are often, in our opinion, the unsuspected causes of attacks of illness in delicate persons.

Most of the Calvinistic, methodist, and baptist churches in New England, and in the northern and middle states, have, it appears, two, three, or more meetings in the evening every week; besides which there are evening meetings for prayer, and in aid of numerous charitable and religious societies; and evening conferences once a week or oftener in most of the churches; so that Dr. Brigham says more than one-half of the evenings of the year are thus employed; and some of the zealous attendants, especially females, occupy in this way every evening in the week,—a practice which he justly condemns, as "encouraging a kind of theatre-going spirit, i. e. a love of excitement, incompatible with a love of domestic life and patient study and research at home." In some of them he has noticed a disturbance of health, and a tendency to nervous diseases, thus created. The excitement itself he considers to be useless as well as dangerous. "I have known people," he says, "all anxiety to hear a man who had visited China or some other country, give a lecture describing the places he had visited; yet these persons had never taken pains to inform themselves respecting those countries, by reading any of the full and authentic accounts of them, to be found in numerous books." We might find excuses for such a pardonable curiosity; but the case becomes serious when, as we learn from Dr. Brigham, throughout the whole community at least twenty-five, if not fifty, out of one hundred females, attend religious meetings at least 100 or 150 nights in a year.

The camp-meetings of America have been described by travellers, and sometimes probably with exaggerations, in books that are in everybody's hands. Dr. Brigham gives an account of them, and even of the fanatical language and practices by which they are characterised, with his usual moderation, setting forth the facts, often in the very words of the performers themselves, but indulging in few observations, and those free from unnecessary severity. In all these instances it is but proper to give the devotees the credit of sincerity, and the sincerity of piety deserves respect. But the consequences of such feelings, when unrestrained by a calm judgment, are generally of a nature to be deplored; and the camp-meetings unfortunately seem to furnish exhibitions equally condemned by [illegible] judgment and by a due sense of propriety. They are meetings held out of doors, and usually in the woods, for several days and nights in succession. Thousands of individuals attend them, and the professed object is a devotion of themselves during the whole time to prayer and other religious exercises. The accounts of these meetings, written by the ministers, abound in narrations of wonderful awakenings and conversions, some of which it is difficult to read without a smile.

As regards the subject of health, it is sufficiently evident that the exposure to the weather, either in the open air or in tents, during such camp-meetings, must be highly injurious to many who attend: but the ill-judged exhortations of the preachers, the frantic demeanour of the converted, the tears and groans and wild excitement of the multitude, produce in many cases the most pernicious impression on the minds of the young, the delicate, and the susceptible; sometimes ending in absolute insanity. The effect upon the preachers themselves appears to be, in almost every instance, an early breaking down of the constitution; and it has been remarked by close observers, that the general results upon the congregation are similar to those which would be produced by strong drink, a temporary and delusive appearance of strength, followed by sensorial debility and disease.

If any one feature of these fanatical proceedings were selected as more melancholy than the rest, it would be the effect of similar impressions made on children. Dr. Brigham quotes some distressing examples of the state of mind and body produced by constant and intemperate efforts to produce miracles of early piety. Such efforts seem as destructive as similar attempts to produce paragons of early mental accomplishment. In both cases the brain, or some portion of the nervous system, is over-wrought, and disease, delirium, and early death are the common consequences. It is impossible to read the case of Fanny Harrison, related with self-righteous complacency by the by-standers, (p. 178,) without the most painful feelings. An interesting child of eleven years of age, is stated *only then* to have become "anxious about her soul." Still, "she had not submitted her heart to God." Attendance on the protracted prayer meetings, and the reproval of all cheerfulness at home, seem to have caused the poor child to be affected with fever, of which she died. We forbear to dwell upon these topics, on which it would be really difficult to express one's feelings with calmness. But such facts prepare us fully to believe the assertion of several observers quoted by Dr. Brigham, that nervous disorders of all kinds, including complete derangement of mind, are becoming more and more prevalent in America. We trust, however, that this work, whatever prejudices it may have offended, will excite such a degree of attention as may check the unreasonable ostentation of devotion which now appears so much to prevail in most of the states. The excitement of mind incidental to a people so jealous of their freedom, and at the same time so indefatigable in the pursuit of wealth, might be mitigated by a calm devotional spirit; whereas the extravagant demonstrations of religious enthusiasm, whilst they further affect and agitate the mind, are, we fear, too often put in the place of an even course of correct conduct, and a due government of worldly desires.

To all who are deeply engaged in the pursuit of the objects of ambition, whether power or possessions, the Eighth Chapter of Dr. Brigham's work may be recommended for careful perusal; and those who in simplicity and earnestness of heart have devoted themselves to religious exercises of which they already begin to feel the debilitating effects, will find much in it deserving of their most serious attention. They will see how directly the brain and nervous system are affected by all vehement emotions, and how variously and seriously the body becomes injured by this nervous disturbance; and surely it will then only require the exercise of reason to convince them that the Creator, whose bounty endowed the body and mind with so many faculties, does not demand the premature destruction of those faculties as a religious duty. To suppose that excitements, leading to exhaustion and religious melancholy, often ending in suicide, and sometimes in murder, can be pleasing to the great and benevolent Creator, is to admit an opinion unworthy of a rational and ins[illegible] people, and utterly inconsistent with the character of the Deity, either as revealed in the holy writings or in the great book of nature.

From these subjects, however, the fuller discussion of which does not form a part of our duty in this work, we turn to Dr. Brigham's publication on the Influence of Mental Cultivation and Mental Excitement upon Health, written a few years earlier, and the appearance of which seems to have been occasioned by his observing the injudicious attempts of parents in general, throughout the United States, to cultivate the minds of their children, at an early age, to an extent quite unsuited to their years and strength, and productive of the worst effects. We are glad to see, by the preface to the second edition, that a conviction of these errors begins to gain ground; although Dr. Brigham is still of opinion that there is much injury caused by too much mental labour being required of children, and by the repression of their natural gaiety and love of amusements. In the preface to the first edition, Dr. Brigham remarked that the females of the United States, especially those in cities, were in general more delicate and feeble than those of Europe; and, at the same time, that there was no country where females received such early and great intellectual culture, and had so little attention paid to their physical education. It appears, too, that in consequence of the openness of the road to the highest honours for those who evince a capability of serving the republic, efforts, much more strenuous than judicious, are systematically made to exercise and store the minds of children. Infants' manuals of all kinds are sold at the bookstores, on various subjects of science, and new and short methods of universal instruction are sure to find many patrons.

Addressing a population prone to such fatal mistakes in the management of children and young persons, Dr. Brigham devotes several chapters to explanations not required by medical readers, but which are extremely well placed in a work intended to inform the public. He points out the reasons which have induced physiologists to consider the brain as the material organ by which the mental faculties are manifested, describes the condition of the brain in early life, and the known effects of its excitement. He urges that mental precocity is usually a symptom of disease, and not a promise of future distinction, and adduces examples to prove that the best and most powerful minds have not been formed by early culture carried to excess; and in support of these opinions he quotes many authorities.

The section of this little work which is calculated to make the strongest impression on his readers, is that in which he shows the influence of mental cultivation and mental excitement in producing insanity, nervous affections, and diseases of the heart. He states that the number of individuals deranged in mind in the United States is as 1 to 262 of the inhabitants, whereas in England it is but 1 in 820, and in Scotland 1 in 574. The moral causes of this great excess in America deserve investigation; and there can be little doubt that the greater number of them would be resolved into some excitement of the brain. It is an undoubted fact that insanity prevails most in countries where the mind is allowed the freest exercise, and where the people enjoy the greatest extent of political liberty. It is common in America, in England, and in France; rare in Russia, in Spain, in Turkey, and in China. Among the educated it is most prevalent in those whose imagination is most indulged, and whose reasoning powers are least exercised. In all times of national commotion it is more than usually common. It is rare in children and young persons, but is sometimes observed in them as the result of violent emotions, or of excessive application to study. Dr. Brigham ascribes its extraordinary frequency in America to four principal causes; 1, too constant and too powerful excitement of the mind, which the strife for wealth, office, political distinction, and party success, produces in that free country; 2, the predominance given to the nervous system, by too early cultivating the mind and exciting the feelings of children; 3, neglect of physical education, or the equal and proper development of all the organs of the body; 4, the general and powerful excitement of the female mind.

We are ce[illegible]y not among those who consider the population of Great Britain as being yet over-educated; but it cannot be denied that even education may be pushed, or perverted, to the extent of pernicious excitement. There are also evils incidental to education, which are erroneously supposed to belong of necessity to education, but which are only the product of prejudices not yet worn out. Among these may be mentioned the long-continued confinement of children in charity and Sunday schools; in consequence of which, many poor children, without acquiring the blessings of real knowledge, incur the evils of a wearied or over-excited brain. Some of these evils are strikingly set forth in Dr. Brigham's statements respecting the city of Hartford, in the United States, of which the population is not more than seven thousand. Nearly all the children commence attendance at school as early as the age of three or four, and attend six hours a day. Many of them attend Sabbath schools, and go twice to church on Sundays, being thus occupied altogether about six hours. There are nine large churches in that little city, well filled twice or thrice every Sunday; and meetings, twenty or thirty times a week, in some or other of these, on other days. There are two literary associations, where meetings are held once a week, open to all; at one of which lectures are given, whilst debates are held on political or historical subjects at the other. *Seven* large weekly newspapers are published, and *five* large religious papers. Several other periodical works are published at Hartford; and the papers and reviews of the other cities are eagerly read, and most of the English reviews and magazines are taken. These circumstances assuredly bespeak an astonishing degree of mental activity in so small a population; and it is a most serious question for the legislator to consider, whether it is in a direction to promote health and happiness, or whether as Dr. Brigham apprehends, these multiplied means of stimulating the mind are slowly producing effects to be transmitted to another generation; not an increase of intellectual power, but increased susceptibility of the brain and nervous system; individual disease, and national degeneracy.

These observations imply no distrust of the benefit, not even a shadow of doubt concerning the positive duty, of educating every rational being; but the idea of education must not be limited to the mere exercising and storing of the mind. A complete education includes attention to the emotions and the moral feelings, and its objects are individual happiness and the general good; objects which unfortunately continue to be too much overlooked. Education is desired as the means of making a fortune, and of attaining a certain station; not as a means of securing simple independence, contentment, a tranquil mind, a habit of benevolence, well-governed affections, and the power of being useful to others. If, then, health is sacrificed, if ambitious views are disappointed, and morality not increased, it is unjust to cry out against education. A partial and unwise system of education produces but partial benefit; a more complete and wiser system would extend it; and such a system would discountenance and exterminate the evils of the false and worldly system to which the name of education is most improperly given. Then it would be found that the proper education of the body was favourable to the healthy condition of the mind; and a rational and cheerful exercise of the mind promotive of health of body; and that both were favourable to the happier emotions of which the frame is susceptible, and which are often annihilated by the destructive struggles made for worldly and selfish advantages.

Dr. Brigham's concluding chapter is chiefly devoted to the illustration of an opinion which deserves to be attentively weighed not in America only, but in Europe; namely, that dyspepsia, far from being invariably a disease of the stomach, is often the result of a disturbed and irritated brain. We are ourselves convinced from observation that what are called sick headachs, occurring in irritable individuals, are often the mere product of disturbance of the nervous system. Nor do we in the least degree doubt that in this busy age, a very great proportion of the cases of indigestion, debility, and nervous pains of which individuals complain, are but the effects of too much labour of the brain; and we entirely go along with the author in believing that the most careful diet will fail to relieve many forms of indigestion unless the existing pressure and irritation can be removed from the mind. This view is entirely bo[illegible]ut, too, by the fact, that comfortable living and freedom from care are of all circumstances the most favourable to longevity. Of these truths we trust the readers of Dr. Brigham's very useful works will become convinced to their advantage. We are truly glad to see the medical men of the United States stepping boldly forward, in the face of many prejudices, to instruct the public concerning their real good. It has ever been the just praise of the profession that its members have done so; and those who cultivate medicine in the United States seem actuated by the same desire to do their duty, and at the same time fully capable of performing that duty efficiently.—*Brit. and For. Med. Rev.*

PATHOLOGY AND THERAPEUTICS.

NITRATE OF SILVER IN IMMENSE DOSES.

THERE resides in the vicinity of London, a gentleman whose face must be familiar to many thousands of its inhabitants. His skin is intensely blue from the internal use (or abuse) of nitrate of silver. He is now about 73 years of age, and at the age of 45 became affected with epileptic fits of the most violent and distressing kind. In these attacks he struggled so strongly that it required two or three people to hold him. The fits also were very frequent, and in one of them he totally and for ever lost the sense of hearing. A most distressing noise in the head, however, has ever since harassed the patient. After trying various remedies for the epilepsy, without the least benefit, he was advised by the late Dr. Curry, of Guy's Hospital, to enter on a course of the nitrate of silver, beginning with small doses, a quarter of a grain three times a day, gradually increased. In the course of a few weeks the attacks began to diminish in intensity, and in a few months, the intervals became much lengthened. The medicine was continued in augmenting doses till the epileptic paroxysms entirely ceased, which they did within six months from the commencement of the course of medicine already mentioned. Dr. Curry never warned the patient as to the effect of nitrate of silver on the skin, if long continued, and the physician himself dying about this time, the patient persevered with the medicine for the space of three whole years, the dose being eighteen grains a day for nearly all the third year! The patient, who is a highly intelligent man, avers that he never experienced any unpleasant effect from the medicine—indeed he felt no effect at all, except its remedial power in arresting the epilepsy. Not having any idea of its physiological agency on the skin, he continued the nitrate with the view of effectually guarding against the return of the malady which he so much dreaded. It does not appear that the blue colour made any serious advance till towards the close of the third year, otherwise it is probable that he would have taken alarm, or that he would have been apprized of the circumstance by his friends. At this remote period, however, he cannot distinctly recollect the exact time when the blue tinge of the rete mucosum commenced or acquired its complete acmé of intensity. This fact is of considerable interest, as there is probably no case on record where such a quantity of the nitrate of silver has been taken, or continued so long. It accords with our own experience as to the absence of any sensible physiological effect on the stomach and bowels which usually attends the administration of this medicine—unless we except a certain soothing agency—probably the consequence of obtunded sensibility in the gastro-intestinal nerves and tissues. In all cases excepting epilepsy, however, it is never necessary to give more than a grain or two of the nitrate daily (pills made up with extract of liquorice) and not continued beyond a few weeks at one time. Combined with the compound extract of colocynth, also, it forms an excellent remedy for irritability of the primæ viæ attended, as is often the case, with torpor of the bowels and vitiated secretions.—*Ibid.*

SIR F. SMITH ON CREOSOTE AS AN EXTERNAL APPLICATION.

The observations of Sir Francis Smith were originally read to the College of Physicians in Ireland, and have been published in our esteemed contemporary of Dublin.*

Sir Francis observes that practitioners in this country evince an indisposition for the use of new remedies—an indisposition, which, he thinks, amounts to a vice, although in its origin a virtue. We feel some doubts of the correctness of Sir Francis's opinion on this point. We see, in practice, in London, little evidence of the bashfulness which he deplores, nor of that coy reluctance to prescribe new drugs, which in Ireland would seem to amount to a vice; nay, could we trust the evidence of our senses, we should rather deplore the wholesale manner in which the new medicines are abused, and the want of discrimination, we might sometimes say of common sense, which is evinced in their selection or their distribution.

Sir Francis has not made many experiments on creosote, and those experiments have been confined to its external application. He observes that one source of discrepancy in results will exist in the difference of specimens made use of; the strength or concentration differing much both from the variety in the mode of preparation and purification, and also from the mode of preservation. That which he has always used was from the Apothecaries' Hall, of sp. gr. of 1,064, and nearly colourless. He has tried the creosote in three cases, or rather, he relates three cases in which he has tried it.

Case 1. A gentleman had phymosis, with the outside of the prepuce covered with ulcers of a ragged phagedæmic appearance, with a good deal of constitutional disturbance. Some alterative doses of blue pill, in combination with morphia and tartar emetic, were prescribed, with soothing applications to the parts. This treatment had the effect, in conjunction with the recumbent posture, of quieting the constitution, and diminishing the tension of the parts. But every mean was tried in vain to cause the ulcers to heal; they still preserved their phagedænic character, and at length united into a zone, nearly surrounding the prepuce, and threatening its destruction. Sir F. Smith now applied the creosote pure with a pencil. Next day the sores were improved, and had contracted one-third in diameter. Being lightly touched every day for six days, they were entirely healed.

Case 2. A young gentleman, much broken down in constitution, became affected with an abscess by the side of the anus, which opened near the latter. On passing a probe into the orifice, says our author, "I found an orifice through which the matter, which amounted to an egg-cup full, had been evacuated; and on passing in a probe, I found it to enter about one inch, passing upwards, and resting upon the side of the gut; on further investigation, I found that the sinus branched about midway its course into another cul de sac, which passed rather away from the gut, and presented to the probe a rough, yielding, spongy sensation; at the opposite verge of the anus an inflamed pile existed." The soothing plan was continued, but it did not answer. Under these circumstances, the creosote was resorted to. Sir F. introduced to the bottom of each cul de sac a very small dossil of lint smeared with it. In two days more the creosote was repeated, and four more applications spread over a fortnight, nearly perfected the filling up the sinus. The red precipitate afterwards completed the cure.

Case 3. A lady, of a scrofulous habit, had had for some months ulcers of the septum narium, which had resisted much and varied treatment. Sir F. resolved to do nothing but employ the creosote locally.

"The ulcers amounted to four, varying in size from the head of a pain to the section of a very large pea; three on one side of the septum, and one (the largest, and the first which had made its appearance,) on the other side.

I at first made use of a wash, consisting of one part creosote, with sixty of water; in which proportions they unite at common temperatures; the wash to be snuffed up the nose frequently in the day. The odour was complained of as very disagreeable, and at the end of two days, I was disappointed by finding that I had made no progress in improving the appearance of the ulcers. I now determined to apply the creosote in its pure form, and began by pencilling the edges of the ulcers with a brush smeared with creosote, and directing the patient to inhale the fumes of acetic acid for a few seconds subsequently. The application of the pencil was rendered easy by firmly grasping the ala nasi, and drawing it outwards; and I advised the inhalation of the fumes of acetic acid for two reasons; first, because acetic acid is the proper solvent of creosote, and would, by being inhaled immediately after its application, have the effect of rendering its action more equable and uniform; and secondly, because the odour would tend to counteract the disagreeable fuliginous flavour of the creosote. The next day I had the gratification to find the character of the ulcers improved; the edges were much less abrupt, and I now determined to apply the creosote lightly over the whole of the ulcer on the left side of the septum, and to brush those on the right side with a solution of creosote in twenty parts of acetic acid; and I continued to do so on alternate days for a week, at the end of which time, the ulcer on the left side of the septum was reduced to a mere point, having every appearance of immediately healing; whilst those on the right side. though improved in appearance, having smooth edges gently declining towards the centre, still preserved their original dimensions. I now applied to them also the pure creosote, repeating the application on alternate days, accompanied with the inhalation of the fumes of acetic acid. The rapidity with which the ulcers now healed was truly wonderful. That on the left side, to which I first applied the creosote in a pure state, was completely healed in ten days; and those on the right side, in six days after the first application of pure creosote, and sixteen from commencement of treatment."

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* May, 1837.

Sir Francis observes, that for small ulceration in the mucous membrane the pure creosote is most effective—that the solution of one part in twenty of acetic acid is not destitute of power—but that the solution of one part in sixty of water is only adapted for ulcers where the surface is large.

There can, we think, be little question that the creosote is an useful application where a powerful stimulant is wanted. It must be classed as a local agent with the balsams, the compound tincture of benzoin, &c. Probably those surgeons who possess the greatest amount of experience will be least disposed to attach to it any very marvellous properties.—*Med. Chir. Rev.*

ON THE INDICATIONS FOR THE USE OF MOXA, WITH CASES.

BY DR. SADLER. (From the Archives of the Corresponding Medical Society of St. Petersburg.)

The moxas employed by Dr. Sadler are about half an inch in diameter, and three quarters of an inch in height. They are composed of a nucleus formed of the pith of the sun-flower (Helianthus annuus), wrapped in layers of cotton of various thickness, and surrounded with an external envelope of thin muslin; both the latter are previously steeped in a solution of nitre. They are held, while burning, by means of two long hair pins, the legs of which are slightly bent, in order to accommodate them to the shape of the moxa; and when the latter is burned down to the place where it is held by the first hair pin, it can be seized with the other, and retained in its proper situation. The moxa must be allowed to act for a considerable time: by observing this rule, the pain after the operation is always considerably less than where the application has been continued only for a brief period. The burnt part requires no treatment for the first few days; it is insensible and dry. Larrey states that moistening the part with spirit of ammonia prevents suppuration: this however is not the fact; suppuration always takes place, and is often very copious. Dr. Sadler never uses more than one moxa at a time, except in cases of violent sciatica, in which he sometimes applies one over the glutei, and another over the most painful spot of the thigh or calf. Except in one instance, which appears somewhat

doubtful, he has never seen any secondary bad effects from the use of the moxa. When used in febrile affections, it generally produces an increase of the fever on the second day. In painful affections, the relief afforded is often instantaneous, and lasts many days. Generally speaking, however, it ceases about the fifth day, and it is on this day that he usually repeats the application, and so on every fifth day until the requisite number have been used. He has never used more than eight, and in most cases not more than three. In one case he used twenty-four, but then they were employed at considerable intervals during the course of two years, and the moxas were only about one-third of the usual size.

The general effects of moxa, on which the indications for its use depend, are divided by Dr. Sadler into, 1, anti-erethistic; 2, purely dynamic; 3, excitant; 4, revulsive; 5, reparative. To illustrate these, he gives the following cases, to which are appended a few more by Dr. Busch and Dr. Wrangell.

I. *Anti-erethistic.* *1st Case.* Miss B. was attacked with violent symptoms, which left her medical attendant in doubt whether they were the precursory symptoms of measles, or connected with a spasmodic affection of the chest to which she was subject. A small quantity of blood was abstracted on the third and fourth day, and on the fifth, a moderately diffused eruption of measles appeared, accompanied by violent gastro-enteric irritation. The vomiting and purging continued in spite of every means, and on the sixth day, the pulse began to sink, and the extremities became cold. A moderately sized moxa, applied over the epigastrium, speedily arrested the vomiting, and removed the threatened danger. The child convalesced slowly, but recovered completely.

2d Case. E. von der L., aged twenty-eight, of delicate constitution, and who had been frequently ill during the winter of 1833–4, consulted Dr. Sadler on the 18th of July, 1834. He presented the usual symptoms of dyspepsia in an aggravated form, namely, weakness, irritability, emaciation, loss of sleep, foul tongue, salivation, anorexia, diarrhœa, heartburn, pain in the chest, and dry cough. He was ordered to use a milk diet, and prescribed the nitrate of potash with laurel water in mucilaginous decoctions; but as the symptoms continued progressive, and the patient became worse, Dr. Sadler applied a moxa over the epigastrium, on the 13th of August. This produced considerable relief, and was repeated on the 17th. On the 19th, the patient felt greatly improved, and his appetite was returning. On the 29th, he was able to dispense with medicine altogether. He recovered rapidly, and is now quite well.

II. *Purely dynamic:* *1st Case.* Herr von St., a strong healthy man, aged fifty, had laboured for several months under a violent pain in the thigh-bone, supposed to have arisen from exposure to cold. No trace of disease could be discovered on examination, and during the day the patient felt quite well, with the exception of a slight degree of languor; but at night when in bed, he was attacked at an uncertain hour with the most intolerable pain, which lasted until morning. He had tried various remedies for several mouths, but without effect. Six moxas, two over the glutei, and four over the most painful part of the thigh, completely relieved him. In the winter of 1832, he had a second attack, produced also by exposure to cold, and was cured again by the application of three moxas.

2d Case. A riding-master, aged forty, who had fractured his leg and thigh, and dislocated the hip-joint by a fall from his horse, consulted Dr. Sadler in December, 1835. He complained of violent pain in the hip, thigh, and calf, which frequently lasted from two to four weeks, totally preventing him from sleeping, and then became for some time much milder. His health was somewhat impaired from loss of sleep, but in other respects his constitution was good. He was completely cured by four moxas, two on the hip, one on the middle of the thigh, and one on the calf. He bore the application of the first two on the hip without much suffering, but the two following ones caused excessive pain.

IV. *Revulsive:* *1st Case.* A shoemaker, aged forty, of emaciated cachectic appearance, consulted Dr. Sadler on the 13th of February, 1833, affected with copious expectoration of fetid purulent matter, great emaciation, and colliquative sweats. In addition to the internal use of acetate of lead and opium, a moxa was applied on the 16th over the most painful part of the left side of the chest. A second was applied on the 20th, but he refused to submit to a third, which was to be applied five days afterwards. His improvement was slow, but evident; the expectoration became diminished and lost its fetid smell. Iceland moss, milk diet, and a residence in the country completed his cure.

2d Case. A married woman, aged twenty-two, of delicate make but sound constitution, caught cold in September 1835, while menstruating. The catamenia were arrested, and she was attacked with violent inflammatory fever, which yielded after some time to general and local depletion, but the patient remained weak and emaciated, and complained of constant pain in the lower part of the abdomen. On examination, a large fluctuating tumour was discovered in the situation of the right ovary. A large moxa was applied over the central part of the tumour, and bark with a nutritious diet prescribed. Five days afterwards, a second was applied over the fundus uteri, and the use of tonics and aperients was continued. Under this treatment, the swelling diminished greatly, the patient began to improve in health and strength, and left the hospital on the fortieth day with the moxas still suppurating. The catamenia appeared again on the 20th of December, and soon afterwards the patient was able to resume her occupation as a washerwoman. The affected ovary never returned to the normal size, but it ceased to give any inconvenience whatever.

V. *Reparative.* Mademoiselle J., aged twenty-two, of full habit, and subject to some irregularity of the catamenia, had laboured for two years under an affection of the stomach, accompanied by constant burning pain in the epigastrium, particularly after taking food, vomiting, salivation, and costiveness. During this period she had used various remedies without success, and consulted Dr. Sadler in 1832, who, having tried the usual means without any result, proposed the use of moxa. A moxa was applied over the region of the stomach, which produced so much relief that the patient came herself five times to have it repeated. Her recovery was complete and permanent.

The first two of the following cases are given by Dr. Busch, the third by Dr. Wrangell.

Case i. A man, aged fifty, of intemperate habits, who had been labouring for three weeks under mucous fever accompanied by diarrhœa, was suddenly attacked with inflammation of the right lung. He was leeched twice, had cupping-glasses applied several times, and a purulent discharge was kept up for a considerable time by means of blistering ointment. Notwithstanding these measures, the pneumonia ran on to suppuration, the diarrhœa continued, and hectic fever set in, attended by great emaciation and sinking of the pulse. After the application of six moxas at intervals of six or eight days, the hectic vanished, and the expectoration ceased to have a purulent appearance. The cure was completed by the use of senega, laurel water, &c. but it was nearly half a year before the patient could leave the house. Dr. Busch observes that he has never witnessed febrile symptoms after the use of moxa, but that he has seen the suppuration continue for several months, although the part was bathed with spirit ammoniæ after the operation.

Case ii. A young man of healthy constitution, was seized with complete paralysis of the lower extremities, after an attack of the prevailing epidemic fever in the spring of 1833. He had also a sensation of heat in the region of the sacrum, and violent pain increased by slight pressure, which compelled him to lie constantly on his belly, and tortured him day and night without any remission. Leeches, cupping-glasses, sinapisms, blisters, &c. were frequently employed without effect. After the application of two moxas, the feeling of heat disappeared, the motion of the affected limbs gradually returned, and two months afterwards the patient left the hospital quite well. Suppuration continued for a long time.

Case iii. A boy, aged five years, was attacked with hæmaturia; but as he appeared otherwise well, his mother took no notice of the occurrence. Some days afterwards he began to complain of pains in the thighs while walking, and his mother brought him to Dr Wrangell. Oily and mucilaginous remedies were at first employed, but without benefit; the same results attended the use of cold applications over the loins, uva ursi, lycopodium, &c. and the urine began to exhibit a purulent deposit. A moxa was then applied over the region of the right kidney, and after some time, another on the opposite side. Under this treatment, all the unfavourable symptoms yielded, and the child got perfectly well.—*Brit. and For. Med. Rev. from Zeitschrift für die gesammte Medicin.* Band iii. Heft ii. and iii.

ON THE TREATMENT OF ILEUS WITH BELLADONNA CLYSTERS.

By Dr. Wagner, District Physician at Schlieben.

The following cases are given in illustration of the treatment recommended by Hanius.

Case I. On the 21st of April, Dr. Lohrenz of Schönewalde was called to visit a man, aged twenty-three, who had been complaining, since the 19th, of violent pains in the umbilical region. The pains came on periodically, and were greatly exacerbated by pressure, so that the patient screamed out when touched. He had incessant retching, his belly was hard and tense, and he had been several days without an alvine evacuation. Venesection, leeches, enemata, and various other external and internal remedies, were employed without any effect; his symptoms increased in intensity, and on the 22d, he had subsultus, syncope, and vomiting of feculent matter. His belly was tympanitic, hard and painful, his bowels obstinately costive, his pulse scarcely to be felt, his anxiety intolerable, and his body covered with a clammy sweat. Under these circumstances, Dr. Lohrenz had recourse to clysters of belladonna. One half of the lavement was first injected; and unlike the other enemata, which were almost immediately rejected, this was retained, and had a marked effect in calming the violence of the patient's symptoms. His countenance became more cheerful, and his abdomen softer, but the pupils became greatly dilated. Half an hour afterwards, the second half was injected, and produced the most decided improvement. It was speedily followed by copious evacuations from the bowels, the pulse rose, the pain and vomiting ceased, and next morning the patient felt quite restored, and has not had since that time any return of his complaint.

Case II. On the 4th of June, Dr. Wagner was called to see a labourer's wife, aged forty, of spare habit, but otherwise robust and healthy. The patient complained of a violent cutting sensation in the bowels, with obstinate costiveness and incessant vomiting. She had had repeated attacks of the same description before, but much milder, and of brief duration. On examination, he found a hernial tumour in the right groin, about the size of a walnut, and so excessively tender on pressure, that she could not bear the slightest touch. The belly was tympanitic and tender, the pulse small and rapid, the face pale, the body moderately warm. A large venesection was premised, and all the usual internal remedies (except quicksilver) tried without any effect; clysters of all kinds were employed, but proved equally ineffectual. The patient refused to submit to a second venesection or the application of leeches, and rejected altogether the proposal of an operation. On the 5th, all her symptoms were increased; her thirst was excessive, and she had fecal vomiting, with suppression of urine. In this state of things Dr. Wagner had recourse to the belladonna clysters. He infused a drachm of the root of belladonna, and an ounce of chamomile flowers (he does not state how long) in twelve ounces of water, and divided the infusion into three parts. The first part was administered by himself as soon as it was cold, and produced very remarkable effects. The nausea and vomiting instantly ceased, and half an hour afterwards, the belly was soft, without much tenderness on pressure, and the hernial tumour much less tense, though still painful. None of the secondary bad effects of belladonna were observed. On visiting the patient at noon, he found her quite easy and contented, but labouring under dilatation of the pupils. She told him that she had been threatened with a repetition of the attack about half an hour before, but that she had stopped it by *drinking a few spoonsful of the clyster mixture.* In the evening, when seen by Dr. Wagner, she complained of a return of the abdominal pain and tension, and as there was no indication of the secondary effects of the belladonna, except some dilatation of the pupil, he administered the remainder of the infusion. The patient passed a quiet night, with the exception of some troublesome dreams, and, on the following morning, the abdominal symptoms were mild and inconsiderable, except that the hernial sac remained extremely tender on pressure, and the incarcerated portion of intestine could not be replaced. At noon, the soreness and tension of the belly increased again, and as no alvine evacuation had as yet taken place, and there were no apparent bad consequences from the belladonna, Dr. Wagner repeated the infusion as before. The first dose produced the usual tranquillizing effect, but no further change; and as the constitutional effects of the remedy were limited to some increase in the dilatation of the pupils, with unpleasant dreams, he administered the second portion, and, towards evening, the third and last.

On the morning of the 7th, the hernial tumour had disappeared, loud borborygmi were heard in the abdomen, and large evacuations of offensive fæces took place, but the patient, after having been annoyed the whole night with frightful dreams, was suddenly seized with such furious delirium that it required several strong men to hold her. Her eye was fixed and sparkling, the pupils excessively dilated, the conjunctiva injected, the cheeks of a fiery red, the pulse small, rapid, and scarcely to be felt, *deglutition unimpeded.* She saw nothing but strange phantoms, which she sought to drive away by abuse and threats, and searched for concealed enemies under her bedding, clothes, and furniture. She believed herself perfectly well, wished to resume her domestic labours, pulled on her clothes with furious violence, and would have rushed out of the house had she not been held by force. Dr. Wagner ordered enemata of vinegar, (which were followed by copious evacuations,) and gave vinegar with strong coffee internally, of which the patient drank large quantities with much desire. Cold lotions were applied to the head, and the limbs were washed with vinegar, an operation which the patient herself performed with apparent satisfaction, washing herself with vinegar from head to foot. This state of things continued until the morning of the 8th, when the patient became rational and composed, but complained of flashes of light and various other optical phantasms, with a sense of great weight and pressure in the head, and a general feeling of soreness and exhaustion, particularly in the feet. She recollected distinctly every thing she had said and done during the preceding day and night, and said that the horrible phantoms by which she was incessantly surrounded had compelled her to act and speak in the manner she had done. On the 9th, she complained of nothing but weakness, which soon disappeared, and she recovered rapidly without any farther unpleasant symptoms.

Case III. On the 3d of July, a smith, aged fifty-nine, was attacked with enterodynia, vomiting, tympanitic swelling of the abdomen, and constipation. Dr. Wagner was called to see the patient, and found an incarcerated hernia of the left groin, about the size of a hen's egg, and extremely sore to the touch. All external and internal remedies, repeated local and general bleeding, and frictions over the abdomen with extract. belladonnæ and ol. hyoscyami, proved wholly ineffectual. Every thing was instantly vomited up, and the clysters were immediately returned. As the patient would not submit to an operation, Dr. Wagner threw up an enema, composed of a scruple of the belladonna herb, and half an ounce of chamomile flowers, in four ounces of water, which arrested the vomiting immediately, and produced such a diminution of the pain, that the patient was able to enjoy several hours' sleep. The abdominal symptoms, however, returned every six or eight hours, and were four times allayed by the use of the same enema. On the 5th, return of the pain and tenderness; Dr. Wagner was afraid to have recourse to the belladonna, as, in addition to great dilatation of the pupils, frightful dreams, sinking and acceleration of the pulse, and dryness of the tongue, had taken place; and he prevailed on the patient, after much entreaty, to submit to the operation. This was performed successfully by Dr. Weistand, on the 6th, and in fourteen days the patient was quite well.

Case IV. On the 5th of July, Dr. Wagner was called to a woman, aged forty-seven, who was said to have been labouring for two days under violent pains in the abdomen, obstinate constipation, and incessant vomiting. On making an examination, he found an incarcerated femoral hernia of the right side, about the size of a small walnut, and excessively tender to the touch; diffused abdominal tenderness, and tympanitic distention. Bleeding, leeching, frictions over the abdomen with belladonna and hyosciamus, and various other remedies, were employed without any effect; and the symptoms assumed a very alarming character. As the patient refused to submit to an operation, Dr. Wagner had recourse to the belladonna clysters, which produced the usual tranquillizing effects, but the hernia remained irreducible, and the patient began to exhibit some of the symptoms of poisoning, as dilatation of the pupils, sparkling of the eyes, a fiery red colour of the cheeks, and acceleration of pulse. Blood was now drawn from the arm, small doses of calomel and laxative salts given internally, and the belladonna clysters continued, until six lavements (each composed of ℈i. of belladonna to ℥iv. of water) were used. The hernia, however, remained irreducible, and as the patient would not submit to an operation, Dr. Wagner discontinued his visits on the 8th. On the 9th, however, the greater part of the hernial tumour had disappeared, the patient had several copious stools, and in the course of two days, found herself quite well.

[The foregoing cases show that belladonna, like tobacco, is a remedy of great efficacy in subduing symptoms of ileus connected with incarcerated hernia. It has also the advantage of relieving pain, without substituting for it the horrible sickness and sinking of the vital powers, which results from the use of tobacco. Two facts, however, connected with the history of belladonna, will always tend to diminish its applicability; namely, its tendency to accumulate in the system and then explode with fearful violence, and the well known fact, that its specific powers vary in a remarkable degree according to the place in which it grows.]—*Journal de Pr. Heilkunde. August,* 1836.—*Brit. & For. Med. Rev.*

MIDWIFERY.

PREGNANCY WITH IMPERFORATE UTERUS.*

REPORTED BY MR. TWEEDIE.

Eliza P——, aged 23 or 24, an Irish woman, residing at No. 105, Little Suffolk-street, Southwark, a patient of Guy's Lying-in Charity, was taken in labour, with her first child, on the 14th or 15th of November, 1836. Mr. Roe, the gentleman to whom the case had been entrusted, was called to her at seven o'clock in the morning. He was informed that she had been in strong pain since the preceding evening, but there had been no shew as yet. Mr. Roe observed the pains to be very urgent and very powerful; but although he remained several hours with her, he had not succeeded in discovering the os uteri.

Puzzled with this novelty (for he had attended a great number of confinements), he requested me to visit her. It was now two o'clock; the patient was on her bed. On examination I found a firm, uniform, globular mass, forcing down into the vagina at every pain (which was of great force), but no irregularity upon its surface could be detected; and a very careful examination of the entire vagina, whose extremity was easily reached at all points, failed in detecting the os uteri. As her bowels had been confined for two days, Mr. Roe had administered a dose of castor oil; so he waited a few hours to see what nature would do, as well as to afford the oil time to operate.

In the evening I again met Mr. Roe, to see the patient. Labour-pains had persisted, and were of unusual severity; the castor oil had acted once. A most careful investigation of every part of the vagina failed to detect any os uteri. At the upper part of the canal, at each pain, there was forced down this tight, tense, globular body, of the bulk of the child's head; and conveying the impression of an entire uterus, without orifice.

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* Guy's Hospital Reports, for April.

About the spot where the os uteri should have been, was a minute portion, somewhat thinner than the surrounding parts; but the whole was uniformly smooth, and contained no break whatever.

On the receding of the mass, in the absence of the pain, something like a child's head could be felt within.

Inquiries were now made, and the following facts elicited:—

Mrs. P—— was married on the 4th of February preceding, 1836. Since the age of 14 she had menstruated every four weeks, sometimes every three weeks. The discharge was always pale and scanty, and continued from two to three days. She never suffered pain at those periods. She has not menstruated since her marriage.

Both before and subsequent to her marriage she has had robust health; and, in the necessary duties of her vocation, has undergone an unusual degree of laborious exertion; but she has not had a day's ill health. For two or three days before labour came on, she noticed a rather copious reddish discharge, that continually drained from her; but there was no pain. On the subsidence of this, about the 12th, slight pains in the back were felt, which went on till the night of the 14th, when they assumed the severe and urgent character which occasioned her to summon her medical attendant at the time already stated.

Having satisfied myself, at this second examination, that there really was no orifice into the uterus, and the pains continuing of a severe character—and the existence of a living child being proved by the pulsations of the fœtal heart, which were distinctly audible, about twice as fast as the mother's pulse—I sought the advice of Dr. Ashwell.

The Doctor lost little time in arriving: and having, by a most careful investigation, positively confirmed the statement of the condition of parts already made, he determined upon losing no more time in making an artificial opening across the abovenamed spot, where the globular body seemed slightly thinner than elsewhere. The patient's pulse was about 120 to 130, very irritable; the pains violent; the skin irregularly hot and cold; the features anxious; the mind irritable; general restlessness: the bowels had now been twice relieved by castor oil. Accordingly, having placed her on her left side, the Doctor introduced his left forefinger as a director; upon which he passed up a curved, sharp-pointed bistoury with his righr hand; and having punctured the spot already fixed upon, he incised forwards towards the bladder (which was empty), and backwards towards the rectum. At this last incision a few drachms of dark blood flowed out. The liquor amnii of course escaped; and the head fell upon the artificial opening, which proved to be of the diameter of an inch and a half, or perhaps nearly two inches, and about a line in thickness.

The Doctor did not incise laterally, lest he should wound any of the branches of the uterine arteries. At one o'clook, A. M. of the 16th, he left the patient in charge of Mr. Roe and myself. The pains abated for a brief space after the operation, the performance of which occasioned no suffering; so that she seemed not to be conscious of any thing beyond the inconvenience of manual interference. Pains, however, recurred; but little advance at dilatation appeared to be made for some time, till about four, A. M., when under the influence of a severe pain, the edge of the orifice tore suddenly towards the right side; and soon after, another rent took place, whilst my finger was at the part, backwards, towards the left sacro-iliac synchondrosis. At this she became faint; the pulse was 140 or 150, feeble; the skin cold and clammy; and she fell exhausted. Æther, ammonia, brandy, and opium, were administered, and she rallied. After resting for about two hours, pains recurred gradually, and became as powerful as at any previous time.

The extent of the laceration on the right side could be reached by the finger; it had not extended to the reflection of the vagina: that on the posterior pas was beyond reach. No gush of blood attended these lacerations. The head became engaged in the pelvis, and was delivered at 11 A. M.

The latter pains were very inefficient; and much stimulant was administered towards the close. With the child there was a more than usual degree of hæmorrhage; the infant (a male) was asphyxiated, and was with difficulty revived.

The placenta was taken away in half an hour, and the uterus contracted well. Nothing further could now be detected on examination, but several ragged shreds about the orifice at the top of the vagina.

The tongue was dry, and brown at tip; the head ached; the pulse was 110, jerking (doubtless referrible, in some degree, to the stimulants). Towards the close of the labour, the bowels had afforded three copious motions.

Liq. Opii sedativ. ♏xl. statim.

And, to meet the expected re-action,

Haust. Efferves. c. V. Ant. Tart. et Tinct. Hyoscyami aa. ʒss. Barley-water.—Quiet.

[She was treated by means of opiates and effervescing draughts till the 20th, when milk appeared abundantly in both breasts. The medicines were then omitted, and the breast-pump used.

Dec. 4th.—Had a little quina, being still weak. From this time she progressively recovered. An examination was made, of which the following is an account:—]

The vagina is short; its extremity, and every part of it, can be readily reached by the shortest fore-finger; it presents no other peculiarity.

There is no cervix uteri. The uterus seems reduced nearly to a normal unimpregnated size. At the extremity of the vagina there is a puckered irregular orifice, into which the tip of the finger can enter: it is soft, with smooth and thick edges, not perfectly circular, in consequence of certain indentations, as if from the drawing together of several small rents.

It might be compared to the base of an apple; whilst this part of a normal uterus would better resemble the apex of a pear.

Radiating from this central aperture can be distinctly felt three ridges, like lines of adhesion; one passing forwards, towards the right ilio-pubic junction, traceable nearly to the reflexion of the vagina; one opposite to this, backwards, towards the left sacro-iliac synchondrosis, whose extremity is lost in the reflexion of the vagina; and the third, of short extent, about one-third of an inch long, passing backwards and to the right. These were distinctly ascertained, by both Mr. Gaselee and myself, to centre in, or radiate from, the aperture above named.

Remarks.—This case is so singular, and is so accurately detailed, that it is scarcely necessary to make more than a single observation. I am not aware that a precisely similar instance is any where recorded; nor do I think that there can be any hesitation about the treatment proper to be employed. The safety of the incision consists in its prevention of limited and extensive laceration. So long as the division by the knife, and the subsequent tearing of parts, is confined to the os and cervix, and does not extend beyond the reflexion of the mucous surface of the vagina over these parts, recovery is highly probable: whereas, if the parts be left to rupture of themselves, the body and fundus of the uterus, and their peritoneal investment, are pretty sure to be implicated, and the result will most probably be fatal.—*London Medical Gazette.*

MEDICAL JOURNALS.

We have received the forty-first Number of the Western Journal of the Medical and Physical Sciences, for April, May, and June, 1837, being the first published under the new editorial superintendence of the *Medical Faculty of the Cincinnati College.* It contains Reports of Cases treated in the Cincinnati Hospital, by the home surgeons Drs. Barbee and Kimball; a Clinical Introductory by Dr. Harrison; an Essay on the Morbid Anatomy of the Liver by Dr. Gross; and Reviews and Bibliographical Notices. Under a common head of *Miscellaneous*, we have a number of articles arranged under three sub-heads of *Analectic*, *Analytical*, and *Original.*

There is one article, the sixth under the last sub-head, which is entitled to the epithet of extraordinary, still more than that of original. We do not remember to have ever seen the pages of a medical journal on this side of the Atlantic, disfigured by such harshness of invective, or, rather, virulence of abuse, directed against any individual, especially one who has maintained, and still retains, a respectable station as teacher and practitioner, and who aims at eminence in both capacities.

Among the advantages, and we believe it to be the chief one, from a plurality of editors or conductors of a literary work, should be the suppression or modification of the language of individual passion, pique, or prejudice. But if such be allowed, it becomes injurious in proportion to the additional sanction which it has received from the colleagues of the writer, and who must at the same time be charged with their share of whatever odium attaches to the obnoxious production. We should say, then, in a spirit of kindness to the Medical Faculty of Cincinnati College, and of esteem for the vigorous intellect and fearlessness of the author of the article in question, that it is far from being creditable to them, either in their editorial or professional capacity.

Southern Medical and Surgical Journal, Vol. II. No. 1. August 1837. We are pleased to see that this work is, after a short suspension, resumed, with a display of its customary merits, under the editorial directon of Dr. Milton Antony, one of the Professors in the Georgia Medical College. The number before us is in a new dress—of a superior quality both as regards paper and type. It contains, among several original articles, two which possess much interest to the physiologist, the one a "Report of a Case of Extra-uterine Fœtation in a Sow; with some remarks on the Nutrition of the Fœtus, by Addison Bean, M.D., of McDonough, Ga.; the other, "An Account of an Anencephalous, or Human Monstrosity, without Brain and Spinal Marrow." By Alexander Y. Nicoll, M.D., and Richard D. Arnold, M.D., of Savannah:" with three illustrative engravings. We are glad to find our former pupil and friend, Dr. Arnold, intent on adding to the stores of physiological history. On another occasion the observations which he has recorded will be noticed in our "Eclectic."—"Verminous Irritation, assimulating other diseases," "The Diuretic Virtues of the Root of the Azalea, or Honeysuckle," and an "Essay on Female Diseases," are the subjects of Articles by Drs. Lee, Macon, and Meek. The advantages of an "American Medical Association," are argued in another division of the Southern Journal. "Thomsonian Surgery" is shown up in its appropriate guise. Reviews and extracts, and Notices of Medical Colleges make up the rest of the Number.

* * *

Transactions of the Medical Society of the State of New York. Vol. III., Parts 1 and 2. 1836–7. Albany. E. W. & C. Skinner.

The papers composing these Transactions, the First Part of which we have recently received from the publishers, although, as might naturally be expected, of unequal merit, are, taken collectively, creditable to the Society from which, and under whose auspices, they emanate. The initial article in each Part is the Annual Address by the President of the year;—that for 1836, by John H. Steel, M.D.; and the one for 1837, by James McNaughton, M.D. The former is "On the Derangement of the Digestive Organs;" the latter, "On the Progress of Medicine in this State" (New York).

Dr. Steel's Discourse exhibits the subject in a clear and distinct point of view, without, at the same time, any pretensions to novelty. The evils of excessive repletion, and endless variety of aliment, having been stated, the author dwells somewhat on the pathology of the derangement in question, and expresses his dissent from the dogma that there may be serious functional disturbance without organic change. He protests with animation against the opinion of debility, alone, being the cause, rather than a symptom of indigestion and its consequences, and he deprecates the hasty and too common resource to tonics and stimulants. He says, correctly:—

> "Physiological researches have demonstrated that the irritability or morbid excitement which constitute the derangement of the organs of digestion, may be situated in various parts of the alimentary canal; as the œsophagus, stomach, small intestines, colon or rectum, and that it is often confined to some one of the structures which compose these organs, as the peritoneal, the muscular or the mucous membranes. It is of importance to ascertain the location of the disease and the particular structure of the organ affected, for these are circumstances which are found greatly to modify the character and symptoms of the disease, and serve to influence our judgment as to the result of its termination. In almost all cases, particularly those of recent occurrence, the disease is confined to one particular organ, and frequently to a small surface of that organ, or a portion of some one of its membranes. The excision of an elongated uvula, which had continued for months and produced a considerable degree of irritation about the throat, effected the immediate cure of an obstinate case of indigestion, which evidently had its origin with that of the irritated fauces; and the removal of hemorrhoidal excrescences has, in some instances, produced the same effect, in cases equally obstinate.

Polypharmacy, and the fluctuating plans of treatment in derangements of the digestive organs are commented on with suitable emphasis by Doctor Steel, whose situation as physician at Saratoga enables him to see annually a large number of persons suffering from these disorders, and to learn the medicinal course to which they had been subjected. He sums up his views in the following propositions:—

> "That the powers of the digestive organs of man, when in a regular and perfect condition, are capable of reducing the most dissimilar and differently constituted materials of food, into a healthy and homogeneous mass, suitable for the circulation and qualified to supply the wants and increase the growth, vigor and strength of the system.
>
> "That this property of the organs is the result of structure, and cannot be changed, altered or modified in any way, but by an alteration or derangement in the structure itself.
>
> "That slight derangements of some of these organs, or their tissues, frequently occur, as in the case usually termed Dyspepsia, for which abstinence and rest constitute a certain and speedy remedy.
>
> "That functional derangement is but the symptom of organic disease, on which it is entirely dependant.
>
> "That these derangements, however slight, are the result, in all cases, of morbidly increased irritability or excitement of the organ or tissue affected, modified and characterised by the peculiarities of structure, and when neglected or improperly treated, advance into acute inflammation, or are converted into chronic affections, and terminate in engorgement, congestion, effusion or ulceration.
>
> "That in the treatment of the derangement of the digestive organs, stimula-

ting and tonic medicines are absolutely inadmissible, and in all cases, can have no effect, other than to procrastinate the disease or render it incurable.

"That the pathology of organic derangement, the causes which operate to produce it, and the actual state of the organs so far as that can be ascertained, all indicate the propriety of the antiphlogistic treatment, regulated by a sound judgment and a perfect knowledge of the organs or tissues affected.

"It will readily be perceived, by those who have examined the subject or have made themselves at all familiar with the writings of modern authors, that in the foregoing observations there is no attempt at novelty or the promulgation of new or speculative opinions; the subject has been thoroughly investigated by individuals whose names alone are sufficient to furnish for their opinions a passport to the mind of the most sceptical, and whose genius and acquirements elevate them far above the common rank of their cotemporaries."

Doctor McNaughton's Address contains a History of the Progress of Medicine in New York, as connected with the Foundation and Endowment of Schools and Societies for its cultivation and teaching.

"The first general law regulating the Practice of Physic and Surgery, was passed in 1797. By the act of 23d March of that year, every student was required to study four years, if not a graduate, and three, if a graduate. It was also enacted, that any person practising without a licence, should pay a fine of twenty-five dollars. It was further provided, that in case of some sudden emergency, any person might administer medicine, or even perform surgical operations; but no demand for compensation, for the services rendered, could be lawfully made. This act continued, without material alteration, until April 4th, 1806, when the law incorporating the State and County Medical Societies was passed."

Although prior to the passage of the Act of Incorporation of the State and County Societies, in which it was declared, among other things, that no person should practice physic or surgery in the state without first having received a license as doctor, there existed some medical societies in New York, and other places, their influence was limited as well as their privileges. It was not until the organization of the State and County Societies took place, says Doctor McNaughton, that the profession acquired a regular form.

In three months after the passage of the law, no fewer than twenty County Medical Societies were formed, pursuant to its provisions; and in two years there was scarcely a county in the state of any considerable population without its Medical Society.

"The first meeting of the State Medical Society took place on the third day of February, 1807. Dr. W. M'Clelland, of this city, was chosen President, and Dr. Sheldon, of Montgomery, Vice-President. The Society adopted sundry resolutions for the promotion of Medical Science. Each member of the Society was directed to furnish a Geological and Topographical Survey of the County of his residence, and to read before the Society an account of any remarkable case of disease that might have occurred in his practice."

Notwithstanding these apparently liberal measures for the elevation of the profession and the extension of its usefulness, Dr. McNaughton makes the following complaint against legislative blindness:—

"It remained, however, for the state of New York to legalize quackery, by positive enactments. The general provisions of the law of 1806 were retained in the revision of 1813, with this most extraordinary proviso:—'That nothing in this act contained shall be construed to extend to debar any person from using, or applying, for the benefit of any sick person, any roots, barks, or herbs, the growth and produce of the United States.'"

Still no provision had been, hitherto, made for founding medical lectureships, and requiring students to attend them, preparatory to their undergoing an examination and procuring a licence to practice.

"Although a medical college has been in existence in this state since 1792, and a considerable number of students have resorted to it, attendance on lectures has never been imperative; indeed, until 1818, no inducement was held out for such attendance. In a law passed that year, by the legislature, it was enacted, that the regular term of study should be four years, from which one year might be deducted, if the student had attended one full course of lectures at some incorporated medical institution in this state or elsewhere. This last provision, although not positively requiring attendance on lectures, has had a more important influence on the spread of medical education, in this state, than any other provision in the statutes regulating the practice of physic and surgery. At first, most of the students attended lectures, rather with a view to shorten the term of study, than from any expectation of special benefit from the lectures—so little were the great body of practitioners aware of the advantages the public schools possessed over private offices, for the instruction of students."

The example first set in Philadelphia, in 1763, by Dr. Wm. Shippen, to establish a Medical School in the then colonies, was soon followed by New York. In 1767, a medical faculty was organized, under the charter of King's (now Columbia) College. During the revolutionary war, however, the lectures were discontinued, and were not again resumed until some time after the return of peace.

"In 1792, the trustees of Columbia College re-organized the medical faculty, consisting of six professors, and the school was re-opened. It began with the fairest prospects of success—being situated in the largest and most commercial city in the Union—possessing an able faculty, and having in its vicinity an extensive hospital, to which its pupils could resort, for practical instruction. Nor were the expectations of its friends disappointed. It continued to rise in character and to increase in the number of its pupils until 1807, when in an evil hour, another medical school was established in the same city."

The reference made to the new school was the College of Physicians and Surgeons, which was incorporated. The struggle between the two schools is represented to have been a discreditable strife, productive of disastrous consequences to both, as well as to the profession at large.

"A union between the Faculty of Medicine of Columbia College and the College of Physicians and Surgeons took place in 1814. From this time a new era for the College of Physicians and Surgeons began. It rapidly acquired fame, and a corresponding accession of students, from every part of the United States, from the West Indies, and from the British Provinces."

But these brilliant prospects and beginning fruition of lucre and fame were blighted by discord between the Board of Trustees, composed chiefly of medical men, and the professors. The difficulties between these parties could not be adjusted, and the professors in a body resigned their chairs, (1825).

A new faculty was appointed by the regents, and the ex-professors, "not relishing private life, immediately organized another medical school, in opposition to the state institution." They first attempted to connect themselves with Rutgers' College in the state of New Jersey; but the legislature of New York prohibited this union under the penalty of all degrees and licences to practice under it being void. Their efforts next were directed, and for a while with success, to a connexion with Geneva College, in the western part of the state. But this was of short duration,

"For by the revised law of 1827, it was declared, that no diploma or degree conferred by any college in this state should be a license to practice medicine, and that no college should 'have or institute a medical faculty to teach the science of medicine in any other place than where the charter locates the college.' "

Reference is made to the want of encouragement from the legislature of the state, or from the municipal authorities of the city, of New York, to the present medical school, the College of Physicians and Surgeons. The number of students attending the lectures in its halls never exceeded, we are told, 220, during its most palmy days. One great cause of the difference of the fortunes of this school and that of the Pennsylvania University, seems to us to be the establishment of medical schools in the interior of the state of New York, which have naturally diminished the confluence of students at the city. Of these we next learn:—

"The College of Physicians and Surgeons of the Western District, was the next medical school instituted by the state. It was incorporated in 1812. It is located at Fairfield, in Herkimer county—a small country village. The legislature granted $15,000, to be raised by lottery, as an endowment. The greater part of this fund was expended in the erection of buildings, and in paying small salaries to the earlier professors."

After overcoming adverse fortune, the particulars of which are given in the Address, its prospects assumed a more brilliant hue.

"Every thing promised a prosperous course for the school, and the professors flattered themselves, that they were about to be rewarded for their exertions, and remunerated for their expenditures. In the session of 1834, there were 217 students in attendance—a larger class than ever attended at a country medical institution. But it was now discovered, apparently for the first time, that the western part of the state was sadly destitute of the means of medical education,—that a whole million of people, west of Utica, were without a medical school for their children."

This want, real or fictitious, was gratified by the establishment of a medical faculty in Geneva College, and its being legally empowered to grant degrees in medicine. Of this institution Dr. McNaughton says:—

"It has completed its third session. The number of students in attendance last session, was between 50 and 60, and at the institution at Fairfield, 164; being an aggregate not exceeding the class in attendance at Fairfield alone in 1834. Even if the two schools were to divide equally the number of students between them, neither of them could be said to be in a flourishing state. There is not support enough for two respectable schools in the country; and it is more than probable, that at no distant period, one or both of the existing ones must be discontinued."

Having completed a sketch of the course of medical legislation, and of the history of the medical institutions of this state, Dr. McNaughton next proceeds to animadvert on the obstacles to a good medical education. These consist, as he shows, mainly in, first, the defective preliminary education of students of medicine, and, secondly, the want of practical instruction, when they are fairly embarked in the study. Some of the particulars given in the address will, perhaps, be introduced by us on a future occasion, when this ever and properly recurring subject of medical education comes up.

We are compelled, for want of space, to forego at this time an analysis of the contents of many other papers in these Transactions; and must content ourselves, if not our readers, by an enumeration of their titles. It is, however, far from our intention to debar ourselves, in future numbers of the Journal, from a fuller notice.

Following the Address of Dr. Steel in the first Part, is A Medical Topographical Report of the County of Tompkins, by Dr. Bacon; Report on the Varioloid by Drs. McCall, Eights, Bay, and T. Romeyn Beck, Committee of the Society. In Part II., after Dr. McNaughton's Address, we have the *Prize Dissertation* for 1837, by Benjamin W. McCready, on the Influence of Trades, Professions, and Occupations in the United States, in the Production of Diseases; Medical Topography of the County of Tioga, by Dr. Wm. Bacon; Dr. Manley's Memorial on the Cholera; Observations on the Causes of the large proportion of still-born Children in our large Cities over those of London, by the late Stephen W. Avery, M.D., of New York; An Essay on Typhus Fever, by James Fountain, M.D.; Directions for the Establishment and Government of a Lunatic Asylum, by M. Brierre de Boismont, M.D., &c. (translated from the French by E. Quincy Sewell, M.D.); Physiological Explanation of the Beauty of Form, by Benjamin F. Joslin, M.D., Professor of Natural Philosophy, and Lecturer on Anatomy and Physiology in Union College, N. Y.; Statistics of the Deaf and Dumb in the State of New York, the United States, and in various countries of Europe, by T. Romeyn Beck, M.D.; Observations on some of the Injurious Effects of the Secale Cornutum, by Thomas Chavasse, Esq., Surgeon, Birmingham, (extracted). An Abstract of the Proceedings of the State Medical Society closes each of the two Parts.

ANIMAL MAGNETISM.

Comment est ce que cela se fait? Mais se fait il? faudroit il dire.—MONTAIGNE.

WHAT is Animal Magnetism? We shall answer this question in two ways:—In the first, we shall give the creed and its proofs, as advanced by the true believers. In the second, it will be our endeavour, in a suitable magnetic frame of mind, to show the antiquity of this science, and the numerous authorities and curious *facts* of retrospective lore in its favour. If we perform the first part of our purpose with a gravity befitting the importance of the subject, we may reasonably hope that our readers will not allow any ill-timed levity or unseasonable expression of doubt to distract their attention in the perusal of the second part. It would be a sad lack of courtesy in him, who has just told of his having voyaged some days on the back of a dolphin, in the equatorial sea, to smile incredulously, when his friend should assure him that, during this time, he had visited the moon, borne thither by a Condor of the Andes.

Mesmer is commonly regarded as the discoverer (inventor?) of animal magnetism. He began his public career in 1772 at Vienna, by attempting cures with the application of the mineral magnet, which had been lauded by Paracelsus, Van Helmont, and others. To a certain Jesuit, however, of the name of Hehl, was Mesmer indebted for the immediate suggestions to try this practice. By the latter, experiments were multiplied, and cases of magnetic cures recorded with such effect that, one might say, all Germany was covered with magnetic rings, seals, and rods. But, soon, he made the notable discovery, that the magnet was not necessary to procure these brilliant results,—and he advanced a theory which supposes a mysterious agency, allied to the magnetic power, and depending on a principle diffused throughout nature,—a fluid, in fact, through which the heavenly bodies, the earth and animated bodies reciprocally act on one another. Whilst admitting the universal diffusion of this fluid, Mesmer taught, at the same time, that all living bodies are not equally susceptible either of receiving or of retaining it; and that some are rebellious to its impression, and will even neutralize its power. To the operation of this fluid, by its passage from some favoured beings (magnetisers) into the frames of others (the magnetised), was given the title of animal magnetism. By its means, the physician would be enabled to ascertain the state of health of all persons submitted to his inspection, and to determine positively the origin, nature, and progress of their diseases, prevent the increase, and accomplish the cure of these latter, without any unpleasant or dangerous consequences, whatever may be the age, sex, or temperament of the party afflicted.

By a dulness of perception, not uncommon in all ages, on the part of mankind to its greatest benefactors and *benepromisers*, the good people of Vienna could not appreciate the merits and importance of animal magnetism, or of *Mesmerism* as it was called. They were even so ungrateful as to accuse its author of fraud, in his pretended restoration to sight of a blind female musician; and he found it most convenient to quit Vienna and to repair to Paris, then, as now, a fitting stage for every innovation which can captivate the imagination and excite wonderment. This was in the year 1778, a time when greater changes were in process of accomplishment, and greater miracles performed in these United States under the *extasis* of patriotism, than have been yet recorded in the annals of Mesmerism. At Paris our magnetic philosopher met with varied success, until finally his system and his claims were reported on by a committee, consisting of some members of the Academy of Sciences and Physicians,—among whom was Franklin. Bailly drew up this report, which set at rest, for many years, what was considered the charlatanry and vagaries of animal magnetism.

Mesmer's magnetic parties must have been passably amusing. In a large hall the patients were ranged in a circle, in the centre of which was a wooden bowl, and on its top were numerous holes, to allow of iron rods, jointed and moveable, passing through them. Each person had his rod, and could, if need be, apply it to the diseased parts. A rope or cord was carried round the circle composed of the bodies of the persons subjected to the magnetic process, which served to unite them all together. Sometimes a second circle was formed outside of the first; the patients of the latter being placed in communication with those of the former by taking hold of hands. The magnetiser held in his hand a small rod of iron, from ten to twelve inches long, which was represented to be a conductor of the magnetic fluid. Sound was, also, made to convey the magnetic influence; and a rod of iron, as above, was brought in contact with a piano, on which, during the ceremony, different tunes were played, with sometimes the accompaniment of song.

The patients, thus ranged in great numbers and in several rows round the '*baquet*,' as the wooden tub was called, received magnetism by all these different ways;—by the iron branches which came out of the tub, by the cord which was entangled round their bodies, by the union of the thumbs, by the sound of the piano, and of the agreeable voices which mingled with it. They were more directly magnetised by means of the finger and the iron rod moved before the face, above or behind the head, and upon the diseased parts; the distinction of the poles being always observed. They were acted upon by a fixed look; but, above all, they were magnetised by the application of hands, and by the pressure of fingers upon the hypochondria and upon the abdominal region; an application often continued for a long time, sometimes during several hours.

So much for Mesmer and his imposing process. For further details of which, and of the report of the French *savans* already mentioned, we would refer to the work of Dr. PRICHARD on INSANITY published in the *Select Medical Library*. In later times, since the subject of animal magnetism has been resumed, and the 'vonderful vonders,' as the cockney showman has it, of the new science increased—beyond all reason, the coldly sceptical might say—a more simple course, consisting in manipulation and manœuvre, is generally adopted. The person to be magnetised is seated on a chair or sofa, and before him or her, as the case may be, is seated, on a somewhat higher chair, the magnetiser;—so that the knees and extremities of their feet may touch. The latter, seeming to collect his thoughts for a brief space, takes hold of the thumbs of the patient, dupe or victim, as the case may be, and retains them in apposition with his own, the insides of both being the parts in contact, until an equilibrium of temperature is established between them. The magnetiser then places his hands on the shoulders of his patient, and after some minutes draws them down the arms, taking care to direct the extremity of his fingers along the tract of the nerves which are there spread. This manipulation, designated by the term *passe*, must be repeated several times; after which the operator, or magnetiser, or charmer, according as we may choose to call him, then places his hands over the head of the patient, rests them there for a moment, and draws them downwards before and at a distance of an inch or two from the face, and continues them as low as the epigastrium, on which he rests for a time his fingers. Afterwards, he carries his hands along down to the knees, and even, at times, to the feet. The hands are brought back by a gradual travel upwards to the head; care being taken that they do not, this time, touch the body of the magnetised. The manipulation downwards from the head, or the *passe*, is then to be repeated several times. Finally, the operation is terminated, some would say completed, by the magnetiser prolonging the *passes* beyond the termination of the hands and feet, and each time shaking his fingers: he then makes transversal movements, or *passes*, at the distance of three or four inches from the face and chest of the magnetised, holding the two hands together and then suddenly separating them.

Sometimes the magnetiser places his fingers, of each hand, at the distance of three or four inches from the head and stomach of the patient, retains them in this position for one or two minutes, then alternately withdraws them from, and approaches them to, these parts with more or less quickness; imitating therein the very natural movement by which one endeavours to throw off any fluid that may have been adherent to the ends of the fingers. During the whole time, the magnetiser must keep his eyes fixed on the subject of his manipulations.

Among the conditions which have been laid down for the success of the magnetic procedure, are—a strict silence on the part of all who are present, and an avoidance of any expression of countenance which should embarrass the magnetiser or cause any doubt in the magnetised. The attention of the magnetiser must be entirely concentrated on his operation; any distraction of mind being incompatible with success, to which, by the way, it should be added, his looks and the expression of his countenance powerfully contribute.

By others a condition has been insisted on, which must, in many instances, be found hard to comply with. It is a *sincere belief* in animal magnetism.

Room is not allowed to us in these pages, even if inclination prompted, to enumerate the alleged phenomena of animal magnetism. This has been done with the patience, and, some doubters would add, the imagination, characteristic of their nation, by some German writers. The inquisitive into such matters we again refer to the pages of Prichard on Insanity.[*] A bare enumeration must suffice us at this time.

The first degree of magnetism is termed the waking state of somnambulism; the second is that of imperfect or half sleep; the third the stage of inward darkness or magnetic stupor, *innere dunkelheit.* To this succeeds inward illumination, *innere-klarheit,* which subsists during the fourth, fifth, and sixth stages. The fourth stage is that of somnambulism; the fifth is that of *clairvoyance, selbstbeschauung,* or second or clearsightedness; the sixth is universal clearsightedness, '*allgemeine klarheit.*' This inward illumination, this lucid somnambulism and transfer of the senses to remote parts of the body, is a discovery made since the time of Mesmer by a physician of Lyons, named Petetan.

In the state of *clairvoyance,* the magnetised person or somnambulist, can merely distinguish, by means of the eyes, strong light from darkness; and, according to Treviranus, when the eyelids are open, which seldom happens, the pupils are either turned up, as if spasmodically, or are dilated and insensible—all power of moving them being suspended. At the same time, the sense of feeling becomes metamorphosed into something equivalent to perfect sight, so that the individual perceives, by means of the former, the finest of those modifications which are generally perceptible to the visual sense. She recognizes,—*for the subjects of these observations are generally females,*—not only the circumferences and surfaces, but also the colours of objects. She can distinguish the position of the hands of a watch held before her; and by merely touching, or sometimes without coming into contact with it: she can read writing, and write without any aid from her eyes! The epigastrium is the chief seat or medium of this new species of vision, and somnambulists distinguish the hand on a watch held close to the region of the stomach; and, also, to the forehead, back of the head, the ends of the fingers, &c.; and, as Gmelin positively declares, they know the cards of a pack from each other when they are so placed that there is no possibility of their having been seen by the eyes. A somnambulist, mentioned by Tardy, read a piece of writing in characters strange and unknown to her, by pressing it on her stomach; her eyes having been securely closed. A damsel, whose case is given in the *Strasburg Zeitung,* was able to read, not only letters folded up and placed within a cover over her stomach, but a book in another chamber, on a leaf of which a man had placed his open hand, while, with the other, he held the hand of a third person, the latter holding in like manner a fourth, and a chain being thus formed, as in electrical experiments, the last holding his open hand upon the stomach of the somnambulist. Some of these cases are reported to have occurred to individuals who fell spontaneously into the magnetic state without the manipulatory process;

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[*] See Select Medical Library, Nos. 6-7. Chap. XII. On Ecstatic Affections.

but it has been well observed, that they were all collected in places in which the practice of the art was rife and a matter of public interest.

It is assumed by the historians of animal magnetism, that there is a strict analogy in all the phenomena of natural and artificial somnambulism, and this is one of the grounds on which they attempt to render the facts which they report less incredible, by connecting them with a series of phenomena frequently observed.

In a still higher degree, the intensity of the new species of vision without eyes becomes capable of displaying objects too fine for the ordinary ken of mankind. Fischer and Tardy report that their patients saw, during the process of magnetising, a halo of light surrounding both themselves and the operators, and rays issuing from the points of their fingers. Nasse has reported a series of experiments on this magnetic light. His somnambulist saw the breath of her magnetiser issuing from his mouth like flames of fire.

In the fifth stage, or that of complete *clairvoyance*, patients see the whole interior of their own bodies, and are able to describe minutely all the internal organs, with as much accuracy as an anatomist who sees them laid open by the knife. In this state the clairvoyant has the instinct of remedies, and is capable of prescribing for himself. Persons brought into magnetic relation with him possess, also, this power of self-penetration; and sympathize with him in other respects, tasting pepper or salt when either of these articles is put into his mouth.

In the sixth and last degree, the perception of the magnetised, which had been confined to the interior of his own body, becomes now so keen as to give him an insight into all nature: things hidden in futurity, or in distance of space, are subjected to his survey. Weinholt's patient ascertained the illness of her brother, separated from her at the distance of some hundred miles. In the Strasburg hospital, a patient, being in relation with a stranger, told him that his indisposition arose from a fall on horseback, which had really occurred fifteen years before.

A French girl became so susceptible under magnetic influence that she took the diseases of persons in the same room with her, but in no ways touching her. Her *lucid* state (words acquire odd meaning) continuing, she reached the last stage of *clairvoyance*, and, being in Paris, could see her mother, who was living in a small town many miles off, could tell the occupations, attitudes, and even the most intimate thoughts of the old lady. Still farther; this magnetised *clairvoyante* had the gift of *foreseeing*, sometimes days in advance, the visits of persons to her mother, their conversation, the reception of a letter, the effect it would have upon the good lady, and her subsequent reflexions thereon. Finally, for to the most wonderful narrative there must be an end, this gifted personage foretold to her father, who it seems was with her in Paris, the receipt of letters from her mother, and their contents. She *saw*, one day, that her mother was sick, and she dictated a prescription for the latter, which reached the residence at *Arcis sur l'Aube*, just at the very time when her father had received a letter apprizing him of his wife's sickness.

As a counterpart to this display of filial love by the aid of animal magnetism, is the case of a mother, who was magnetised, being rendered able, in consequence, to see, at once, the disease of her child, whom she had before this thought to be on the point of death, and to prescribe with such success that the little sufferer was soon restored to health.

Pleasant and encouraging to the hungry and the needy must be a knowledge of their ability, by the aid of animal magnetism, to transmute water into various beverages, such as wine and lemonade, and into the more nutrimental fluids,—milk, chocolate, &c. Present water to a somnambulist, and she at one time tastes wine, then milk. Our readers will be the less surprised at this power of transmutation, when we point out to them, in the pages of the learned Rabelais, a case of a parallel nature.

But we have not yet done tickling the imaginations of our readers by the particulars of the clairvoyance of the French girl, whose dutiful conduct in prescribing for her mother has just been noticed. This transcendental person; but why should we withhold the name of Clarissa, and be prevented from echoing, with some slight alterations, the exclamation of the Abbé Raynal in his eulogy of Eliza Draper: "Territoire d'Anjinga tu n'es rien, mais tu as donné naissance à Eliza!" Ville d'Arcis sur l'Aube tu n'es rien, mais tu as donné naissance à Clarice,—the flower of French magnetism, as Joan of Arc was of French chivalry. Both broke through the conventional trammels, which would have held in common minds, and obeyed the star of their destiny, in despite of sinister predictions and discouragements. Clarissa, who it seems *was believed* to have been deaf from birth, had been told by certain magnetisers that she was not susceptible of the magnetic influence; but on seeing M. Chapelain, one of the grand-masters of the art, she was soon thrown into a state of somnambulism and subsequent *clairvoyance*. In this state she was so *lucid*, or we should rather say became so lucid, that she could see perfectly well her internal ear, and give an *accurate anatomical description* of it. Still more; she revealed the important fact, that she had not been born deaf as was supposed, but that her deafness proceeded from a *shock given to her internal ear*, by the report of firearms discharged in rejoicings, whilst she was being carried to church to be baptised.

The skill displayed by Mademoiselle Clarice in the diagnosis of her deafness, was but the prelude, as it ought ever to be with all true Esculapians, to devising the means of cure. These were, for our notions of French practice, tolerably active. One day she took, conformably with her own prescriptions, three grains of tartar emetic; on another, twenty-four grains of ipecacuanha. These will produce, as we learn, their customary effects, *without the state of somnambulism being in the least disturbed:* and why should they by an emetico-cathartic course of treatment,—when another French lady had a cancerous breast removed by the knife, whilst in this beatific state of somnambulism, and was not at all aware, until told, of what had been done. But even this, wonderful as it seems, is surpassed by the one which we shall soon quote of the learned Panurge's surgery, as recorded by that shining light of Montpelier, the grave and decorous Rabelais.

After these specimens of the power of animal magnetism, need we feel surprised, whatever other sentiments may also be experienced, that its zealous partisans and practisers, such as Dr. Filassier, should proclaim its power of enabling us to detect the nature and alterations of all the fluids, even the aeriform ones, and the most delicate changes of organic structure in the human body; and, also, to point out the most assured therapeutical treatment:—Or that another great magnetiser, M. Foissac, should gravely attribute to magnetic somnambulism all that is recorded of the supernatural in the predictions of the pythias, sibyls, fairies, sorcerers, &c. When we add, that this same M. Foissac regards Moses and our Saviour and his Apostles as magnetisers or magnetic somnambulists, we have reached the climax, and afforded a lesson to those weak good men who, by their pleased credulity, furnish aliment and incentive to the labours of the transcendental practisers of animal magnetism. By the transcendental, we mean all those who, not content with watching the state of the nervous system, and of the body in general under various influences and agents,—seek to transplant the senses, and to invest finite man with infinite power for ends thus far unimportant if not absolutely frivolous.

But that we may not lose character for impartial history with the lovers of the rare and the marvellous, we shall continue our remarks on the subject of animal magnetism by a brief retrospective review of some of the olden authorities in its favour. In doing this, we must invoke for our readers that *large* and even *robust faith* which the animal magnetisers very properly deem to be of the very last importance: and, surely, it is no unreasonable request to make,—that they who read an explanation and history of the magnetic wonders of the olden time should be in a state of mind similar to those who are called upon to witness or participate in the magnetic displays of the present day. If this our plea be admitted, we would call into court FRANÇOIS RABELAIS, Doctor of Medicine of Montpelier; MICHEL MONTAIGNE, Doctor of Laws, Counsellor of the Parliament of Bordeaux, &c.; ROBERT BURTON, Vicar and Rector; WILLIAM SHAKSPEARE, Master of the Human Heart; and MIGUEL DE CERVANTES, Doctor of Fun and Knight-errantry. We propose to show, by these witnesses, that animal magnetism has, in fact, though not in name, been practised and been productive of the most wonderful effects from a very early period. Whilst adducing their testimony, we shall connect its different parts with such explanations and illustrations, of more modern date, as may be thought pertinent and calculated to strengthen the main position.

Burton is brought forward, with the 'Anatomy of Melancholy' in his hand. We shall now, in the first place, from the testimony of this witness, endeavour to show that the so-called magnetic fluid, diffused through nature and acting on and through the instrumentality of the human body, is a *deceptio sensûs;* and that a more careful observation, by the aid of a compound solar microscope, and, perhaps still better, by the reflecting telescope through which the moon and its inhabitants have been recently seen, would show, that the real active agency consists in the movements and freaks of those minute and hitherto invisible beings pervading all space, which, for want of a better name, have been called spirits of the air; or, in plainer English, little devils. Some idea may be formed of their extreme smallness, from the fact narrated in one of the legends, that ten thousand of them could dance a saraband on the point of a needle. Burton quotes Paracelsus in proof of their existence. This latter, as we all know, was a distinguished physician, and discoverer of the elixir of life: but by some mistake or mishap, probably in one of his drunken bouts, he either broke or lost the vial; and had not time to prepare a fresh supply before he was carried off by a pleurisy, in the forty-eighth year of his age. "Paracelsus confesseth that he saw them divers times, and conferred with them;" and "Leo Suavius, a Frenchman, will have the ayre to be as full of them as snow falling in the skies, and that they may be seen, and withal sets down the means how men may see them."

In showing that these little devils really constitute what has been thought to be the subtle magnetic fluid, we make the same advances in the etiology of somnambulism, and self-penetration and *clairvoyance*, which some pathologists have made, of late years, in the etiology of various malignant fevers, cholera, &c., viz.: that the deteriorated air, or miasm, supposed to produce these diseases, is, in fact, a prodigious accumulation of animalculæ. The resemblance applies also, in another interesting particular. It is; that, in both, the argument just stops short of proof by demonstration.

The existence of these little devils being admitted, it is easy to understand how they find entrance into the various organs and cavities of the body, and play in it such important parts. They are, as we learn, "in their proper shapes round," and, of consequence, can easily insinuate themselves through the pores of the skin, and of the lining membrane of the lungs, &c., just as globules of oil or quicksilver would: and as the entrance of the latter is favoured by friction, so is that of the vivacious and far-seeing and knowing little folks invited and facilitated by the manipulations and passes of the magnetiser. We meet, now and then, with some thick-skinned and insensible bodies, which will not allow of the ingress of these beings; and this explains why their owners cannot be magnetised.

Of the attributes and powers of these little devils, it is testified, (Burton *loquitur*,) that they can assume all manner of shapes at their pleasure, appear in what likeness they will themselves; that they are most swift in motion, *can pass many miles in an instant*, and so likewise transform bodies of others into what shape they please; that they can represent castles in the air, palaces, armies, spectrums, prodigies, and such strange objects to mortal men's eyes, *cause smells, savours*, &c., *deceive all the senses;* and *that they can foretell future events, and do many strange miracles. They know the virtues of herbs, plants, stones, minerals, &c.*, of all creatures, birds, beasts, the four elements, stars, planets; *can aptly apply and make use of them as they see good. Some of these spirits or diavolini are desirous of men's company, very affable and familiar with them*, as dogs are; others again do abhor them as we would serpents. In fine, as Thomas (quere, which), Durand and others grant that *they have understanding far beyond men, can probably conjecture and foretell many things; they can cause and cure most diseases, and deceive our senses; they have excellent skill in all arts and sciences, and the most illiterate devil* is *quovis homini scientior*, as Cicogna maintains out of others.

We have marked in italics the enumeration of those qualities and powers for which the little devils (*diavolini*) are most noted; so that our readers cannot fail to see at once the entire coincidence between these and the *clairvoyant* manifestations in animal magnetism. One can readily imagine, and, with magnetic vision, see how these intelligent and prescient animalculæ, for we may call them so, pass into the body of the magnetised with the quickness and insinuation of an electric current, and occupy various regions of the body. Some take up their station in the ventricles of the brain, others in the cavities of the heart; some, again, in the channels of the senses, and so on in every part: but, more especially, do they love to congregate in the epigastric region, in and about the stomach; whether because of certain crapulous propensities which still adhere to their mixed nature,—or from sympathy with the presiding principle or archæus of the body, which some distinguished men in medical science have supposed to be located in the epigastric centre, observations have not yet enabled us to determine.

At the first moments of the process of manipulation by the *passes* already described, these 'little atomies' enter with such rapidity, and in such number, as to jostle each other and produce some disturbance of the heart and brain, evidenced by irregular circulation of the blood and certain nervous symptoms. Still continuing to crowd in, they oppress the brain and choke up the avenues to the senses, and cause, in consequence, the magnetic drowsiness, torpor, and inability to move the limbs, manifested in the somnambulist. After a while, however, when they have all entered and taken their places, and each one is at its post, there is a regular chain established from the epigastrium and other parts of the body to the surface, and thence to the external air, and so on indefinitely, even to the moon. Then begins the state of *clairvoyance*, or complete lucidness. It is as yet doubtful whether, once in the central and dark parts of the body, they are sufficiently clearsighted to be able to detect, not only all that takes place in their new lodgings, but to see through their casements and tell what is going on out of doors. For ourselves, we do not, in the present state of our knowledge, affirm that they have this power: but once put in regular file, nothing is more easy than that they should be able to communicate to each other, by certain conventional signs, or even a language of their own, the phenomena of the outer world, no matter how great the distance. Now, it has been already said, that they can deceive our senses, and foretell future events; and hence, when a somnambulist says, that she can see through a mill-stone, for example, and tell what her mother is doing a hundred miles off, it is very clear that the little devils are the agents in this matter, themselves seeing and foreseeing everything,—and yet all the while, deceptive spirits as they are, allowing the person of whom they are possessed to suppose that she does these things herself.

We need hardly apprize the intelligent reader that, as recovery from the magnetic sleep and complete somnambulism are procured by counter or reverse *passes*, these *diavolini* follow the current from within outwards, and make their egress from the body with even more rapidity than they made their entrance.

So far Burton, in regard to the *fact* of the existence of the myriads and tenuity of the devils which make up the etherial magnetic fluid, just as the animalculæ make up the deteriorated air in epidemic diseases. We may claim some merit, however, for ourselves, in having raised, on this fact, a theory consistent in all its parts, which serves to explain, as we hope *most lucidly*, the phenomena of animal magnetism.

It next remains for us to give, on the testimony of the other witnesses, various proofs of the workings of these little gentry, long before animal magnetism as a science was named. We rejoice that on us devolves the task, so grateful to a philosophical mind, of redeeming as it were from oblivion a crowd of isolated facts, which have been recorded by various writers, of marshalling them in order, and of showing how they illustrate and harmonise with a grand principle or law.

Rabelais, with his 'Pantagruel' in hand, gives his evidence. We shall content ourselves with a paraphrase of its most important points. One of the officers, named Epistemon, under Pantagruel, in the great battle with the giants, had lost his head. This caput was found after some search, and being well washed and nicely adjusted to the neck from which it had been separated, and the parts anointed with we know not what ointment, and stitched together, it adhered firmly; and Epistemon soon showed signs of life, by breathing, opening his eyes, yawning and sneezing, and in a short time was quite well, if we except a slight hoarseness and a dry cough. These details are purely surgical, and only serve to elucidate still farther the doctrine of adhesive inflammation. But the magnetic part of the narrative remains to be told. It would seem, although no express mention is made of the fact, that Epistemon was in a state of somnambulism before he lost his head: his epigastric centre, however, remaining, he was enabled to see a great many strange things, of which he gave an account to his companions, after the apposition of his head, and his recovery from the trance into which he had been thrown.

He said that he had seen the devil, had spoken with Lucifer familiarly, and had been very merry in the lower regions, and in the Elysian fields; but in respect to the damned he would like to have seen more of them. Their estate and condition of living are changed after a very strange manner;—for, he continues,

> "I saw Alexander the Great there mending old stockings, whereby he got but a very poor living; Xerxes was a crier of mustard; Numa, a nailsmith; Sylla, a ferryman; Hannibal, a kettlemaker and seller of eggshells; Dido sold mushrooms; &c. I saw Diogenes there strut it out most pompously, and in great magnificence, with a rich purple gown on him, and a gold sceptre in his right hand. And which is more, he would now and then make Alexander the Great mad, so enormously would he abuse him, when he had not well patched his stockings."

Among other adventures of the great Pantagruel, was that in which he, under magnetic influence we may presume, was the first of his party, then on board of a vessel, to hear strange sounds in the air. These, as it turned out, were the words and cries of men and women, the hacking, slashing, and hewing of battleaxes, the shaking, knocking, and jolting of armours and harnesses, the neighing of horses, and all other martial din and noise, which had been frozen in the air at the beginning of the preceding winter during a bloody combat between the Arimaspians and the Nephelibates. These various voices and sounds, being now thawed in the season of spring, were heard by Pantagruel and his company. Some of them even were found still frozen, which seemed like rough sugar-plums, of many colours, such as those used in heraldry: when they had been warmed between the hands, they melted like snow, and we really heard them, say the narrators, but could not understand them, for it was a barbarous gibberish.

It will, we believe, be admitted that this is, certainly, a new form of embodying speech and sound, and is in advance, on the score of diablery, of any recent somnambulistic display. It ought to furnish a hint to some of our ingenious magnetising folks to the eastward, and suggest an attempt to pack up in ice a portion of the revelations of their magnetised *clairvoyantes*, which might be brought out in the ensuing spring, or be sent, as they could then be privately, to the people of the south for their especial behoof and guidance. What an improvement on our present style of entertainments, to have served up at our parties pyramids alternately of ice-cream and of iced speeches including sketches of personal and domestic history, poetry, lover's sighs, and sentimental strains. Surely, we may yet, with proper magnetic faith, believe in the probability of this epoch in social intercourse being reached.

But the strongest instance of a magnetic influence, and which has only been paralleled of late years, in Paris, by the girl who, in a state of somnambulism, whilst drinking water, could persuade herself that she was sipping at one time coffee, at another wine, or chocolate or milk, and so forth, is related on the occasion of Panurge's visit to the temple of the wonderful bottle. We cannot do better than give the words of the narrator and witness, himself, of the transmutation of fluids:—

> "Whilst we were admiring this incomparable lamp, and the stupendous structure of the temple, the venerable priestess Bacbuc, and her attendants, came to us with jolly smiling looks; and seeing us duly accoutred, without the least difficulty, took us into the middle of the temple, where, just under the aforesaid lamp, was the fine fantastic fountain. She then ordered some cups, goblets, and talboys of gold, silver and crystal to be brought, and kindly invited us to drink of the liquor that sprung there, which we readily did: for, to say the truth, this fantastic fountain was very inviting, and its materials and workmanship more precious, rare and admirable, than anything Plato ever dreamt of in limbo."

We pass over the minute description of this fountain to reach the account of the kind offer of the priestess, and the effects which were manifested when Panurge and his friends drank of the water:—

> "Bacbuc asked us then how we liked our tiff. We answered that it seemed to us good, harmless, sober Adam's liquor, fit to keep a man in the right way, and, in a word, mere element; more cool and clear than Argyrontes in Ætolia, Peneus in Thessaly, Axius in Mygdonia, or Cydnus in Cilicia, a tempting sight of whose cool silver stream caused Alexander to prefer the short-lived pleasures of bathing himself in it, to the inconveniences which he could not but foresee would attend so ill-timed an action."

Mark now what followed the expression of opinion on the part of travellers, that the liquid which they had drunk was mere water. Bacbuc, after asking them whether their throats were lined, paved or enamelled, that they could have missed the taste, relish and flavour of this divine liquor, turns round to her attendant gentlewoman, and tells her bring the scrubbing-brushes, to scrape, rake, cleanse and clear their palates. Here we find a distinct mention of the process then in vogue for magnetising. The passes were made with what is here figuratively called brushes, but which in fact consisted in hams, neat's tongues, &c., taken into the mouth and swallowed, and with, as we shall see, the same wonderful effect as that witnessed in modern somnambulism. After the preparatory process was over, the priestess says:—

> "'Thus drinking of this miraculous liquor, you'll find its taste like any wine that you shall fancy to drink. Come then,' she continues, 'fancy and drink.' We did so; and Panurge had no sooner whipped off his brimmer, but he cried, 'by Noah's open ship, 'tis vin de Baulne, better than ever was yet tipped over tongue.' 'On the faith of true lanterners,' quoth friar John, ''tis gallant sparkling Greek wine.' 'It seems to me Mirevaux wine,' said Pantagruel, 'for before I drank I supposed it to be such. Nothing can be misliked in it, but that it is cold, colder, I say, than the very ice.'
>
> "'Drink once, twice, or thrice more,' said Bacbuc, '*still changing your imagination, and you shall find its taste and flavour to be exactly that on which you shall have pitched.*'"

But for the well-known good faith and experimental philosophy so evident in the magnetisers of the day, one would be tempted to believe that M. Chapelain, or his interesting somnambulist, Miss Clarissa, had been reading an account of the 'fantastic fountain' in Rabelais, just before the scene in which the transmutation of liquids was enacted by this young lady and her magnetising chief. When the water, magnetised with the intention of its tasting like wine, milk, &c., was handed to her, she said: *this has the colour of wine*, and *when I drink it, the taste also, because you will it so*,—though I know very well that it is only water!

Michel Montaigne having handed his 'Essays' into court, appears next on the witness stand. His grave and yet chearful aspect and easy carriage removed a certain feeling of mistrust in the minds of the court which had been caused by the satirical expression of countenance and laughing eye of the former witness:

How many improbable things there are, begins this witness, testified to by persons worthy of credit, which if we do not believe, we must at least suspend our judgment on. And again, it is both dangerous in fact as well as hazardous to ourselves, to despise what we do not understand; for, when by our boasted understanding we have established the limits of truth and falsehood, we subsequently discover that we have to believe things still stranger than those which we denied to have any foundation. This caution against unreasonable scepticism being premised, and it seems to have been uttered in anticipation of the necessity of recourse to it by our modern magnetisers, Montaigné elsewhere narrates, from his own observation and the recorded experience of others, cases and circumstances as strange as some of those which constitute the wonders of 'self-penetration' and the 'lucid state.'

It has been alleged, that the magnetiser, whilst, by a strong effort of the will, and giving his whole energies to the task, he imparts fresh life and extraordinary powers to the subject of his operations, yet at the same time undergoes, himself, fatigue and exhaustion.

Wonderfully illustrative, and indeed in direct enforcement of this phenomenon, is the remark of a celebrated physician, Simon Thomas by name, to Montaigne, then a young man in the prime and vigour of life. Old *Monsieur le docteur* Thomas, who was consumptive, said that he delighted to look on the fresh complexion and full face of Montaigne. "I have no doubt," he continued, "that if my eyes were allowed to luxuriate at the sight, and my mind to be occupied with the idea of such a spectacle, so as to be saturated as it were with your youth, that I should be in much better health." But, said Montaigne, in his narrative, using the language of a true magnetiser, the doctor forgot to add how much my health would suffer during this feast of his imagination. We can readily trust to the exercise of this faculty in our readers, for them to suppose a great variety of cases in which this sympathetic exchange is brought about. The fact recorded, in sacred writ, of David in his old age taking a young damsel to cherish and revivify him, does not stand alone. When May is wedded to January, she cannot hope to retain her roseate bloom, her wreathed smiles, and pulse's rapid play.

Cases are recorded by Montaigne, after Celsus and others, in which the bodies of persons have become breathless and insensible; the mind, the while, being in a state of ecstasy, ready to tell, it should have been added, both the past and the future, provided there had been a due display of magnetic power. To this last, although the details are not given, must we attribute the singular and sudden change recorded of a certain Cippus, king of Italy, no matter at what time, or of what portion of the peninsula, who after dreaming through the night about bull-fights, at which he had been present and displayed a lively interest on the preceding day, found himself, on awaking in the morning, with two goodly sized horns projecting from his forehead. We can hazard little in supposing that this cornute king had, in his sleep, unconsciously made numerous *passes* across his head. More whimsical still were the effects of a *passe* made by a girl in jumping too high, which displayed themselves in a change of sex. This girl-man was pointed out to Montaigne in one of his journeys. The escape of the female opera dancers from such transformations is probably due to the reverse or counter *passes* by which the effect of the direct ones is counteracted. But we profess our inability to decide so nice a point as this; and must refer its solution to Doctors Filassier, Foissac, and company, aided by the directors of the opera and *maitres de ballet.*

Knowing, as we do, on good magnetic authority, M. Rostan, for example, that the looks and expression of countenance of the magnetiser powerfully contribute to the effects produced, we can the less hesitate to give credence to what is told of certain women in Scythia who, when excited and angry with a person, could destroy him by a single glance. Nor need we go so far back to be convinced of the power of woman's eye, whether lighted up by love or anger. Turtles and ostriches, as the story goes, hatch their eggs by merely looking at them. This may be denied by some matter-of-fact naturalists; but when a man has a subject before him which sets every day facts, and common sense, and the severest logic at defiance, such obstacles as these are soon gotten over.

More directly to the point, and in proof of the sanatory power of animal magnetism in former times, is the case recorded by the present witness (Montaigne), of one of the princes of the blood royal of France, who was crippled with the gout, but who, happily, consented to submit to a process (certain words and gestures) performed by a magnetiser of that day. The result was, that in a few hours he was able to walk about freely.

Miguel de Cervantes with 'Don Quixote' in hand—his right of course, for his left was lost at the battle of Lepanto—*now presented himself.* Questions had been prepared to be put to this witness respecting his knowledge of charms and conjurations, as they were called in his time, derived from a residence, while a prisoner among the Moors. But these were waived, on its being suggested by the court that, probably, all desirable proof of the matter could be obtained by reference to the adventures of the hero of La Mancha, which were on record, and the authorship of which was distinctly proved to belong to the witness.

Don Quixote was an instance of complete magnetisation, saturated as he was with these little devils, which, as we have already seen, can represent castles in the air, palaces, armies, spectres, prodigies, &c., and deceive all the senses. This somnambulist errant *saw* and lived in a world of his own, far beyond the ken of his fellow mortals, who, in excuse for their own blindness and opacity, ridiculed and opposed his *clairvoyance* and the object and scope of his adventures. It was his misfortune to live in an age in which superstition was rife enough, but yet in which the time for establishing magnetic relations had passed, and had not yet been revived, as it now happily is. He was unfortunate, also, in his squire Sancho, who was a rude and robustious unbeliever,—a fellow all stomach and no nerves. Surcharged as the Don was with the magnetic fluid, he could not have failed to penetrate others with it,—had he, with the indomitable will which he possessed, been endowed with corresponding physical force. In the failure of his *passes* before his dulcinea, we recognize the counteracting agencies of her own good health, of mountain air, and of the garlic which she had been eating a short time before. Besides this, the magnetic value of the intensity of his own gaze, when kneeling before her, was rendered nearly null by the arch leer of his faithless squire near him. It is doubtful, indeed, whether the greatest masters of the art now living could resist successfully these untoward influences. Certain it is, that they are careful, either to withhold them, or to make their experiments under very opposite circumstances from those on which Don Quixote operated.

William Shakspeare now came forward. His appearance caused an obvious and general sensation, both on the court and auditory present; and the words, great magician, fairy minister, charmer of all hearts, and great magnetiser, were whispered by hundreds present. The eyes of many were fixed in different directions, as if on figures,—half shadowy, half material. One exclaimed Hamlet—the royal dane; another, Macbeth—thane and king that shalt be; a third, Othello—the noble and confiding, yet betrayed and jealous Moor. The eyes of the ambitious man rested on hunchbacked Gloster;—those of the young and trusting lover on Romeo and Juliet. In fine, the entire hall, extensive as it was, seemed to become suddenly filled with a crowd of characters and persons representing every nation and individual of mark and note, and every emotion of the human mind. Following the poet was Prospero with his obedient Ariel, and Oberon the fairy king,—and the spirits of the air, and of the earth and sea,—with frolicksome Queen Mab to bear them company.*

We might rest the cause on Shakspeare alone;—sure that the opinion of the court within, and of the still larger and democratic judiciary without, would be in favour of animal magnetism, as proved in the works of this great poet. The powers which they first evinced continue unabated to this day. Now, as then, they produce all the stages of somnambulism and ecstasy, and transport us to other and remote regions, with the inhabitants of which we hold converse, more evidently and distinctly than can be proved in the most marked case of *clairvoyance* of the present time. The poet seems to have been fully aware of the nature and extent of the magnetic influence, from the pains he takes in so many passages of his dramas to show its processes and its workings. *Prospero*, witnessing the success of the passes which he had directed Ariel to execute, with a view of inducing mutual love in the breasts of his daughter and nephew, exclaims:—

"At the first sight
They have changed eyes.—Delicate Ariel,
I'll set thee free for this!"

And again, addressing Ariel, he says:—

"Thou and thy meaner fellows your last service
Did worthily perform; and I must use you
In such another trick: go bring the rabble,
O'er whom I gave thee power, here, to this place;
Incite them to quick motion; for I must
Bestow upon the eyes of the young couple
Some vanity of my art; it is my promise,
And they expect it from me."

Well remembered must be the *passe* by which Macbeth, at the banquet, was for a time transfixed, immoveable, until a reverse passe freed him once more. But the magnetising process performed by Hamlet on Ophelia, is described more in detail:—

"*Ophelia.* He took me by the wrist, and held me hard,
Then goes he to the length of all his arm,
And, with his other hand thus o'er his brow,
He falls to such perusal of my face
As he would draw it. Long staid he so;
At last, a little shaking of mine arm,
And thrice his head thus waving up and down."

Hamlet himself must have been in a state of clairvoyance, at the time, his vision being transferred to his epigastrium; since, according to the testimony of Ophelia—

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* Everybody has read, either in the play or as part of school exercise, Mercutio's account of Queen Mab's somnambulistic power.

> "That done, he lets me go;
> And *with his head over his shoulders turned,*
> *He seemed to find his way without his eyes,*
> *For out o' doors he went without their helps,*
> And to the last bended their light on me."

We need not narrate here the well-known effects of the magnetic passes on poor Ophelia. Her somnambulism was complete, and only ended in her death. But the description of her state is so applicable to that of some young female somnambulists of the day, that we cannot forbear from introducing it.

> "*Horatio.* She speaks much of her father; says she hears
> There's tricks i' the world; and hems, and beats her heart;
> Spurns enviously at straws; *speaks things in doubt,*
> *That carry but half sense; her speech is nothing,*
> *Yet the unshaped use of it doth move*
> *The hearers to collection; they aim at it,*
> *And botch the words up fit to their own thoughts;*
> Which as her winks and nods, and gestures yield them,
> Would make one think, there might be thought
> Though nothing sure, yet much unhappily."

Brabantio was not aware of the power of animal magnetism when he accused Othello of having stolen from him and corrupted his daughter, 'by spells and medicines bought of mountebanks.' The old man forgot the times when Desdemona did seriously incline to hear the Moor's adventures, his dangers and escapes: 'twas then, doubtless, that the latter charmed her by magnetic passes learned in his early days in Mauritania.

The mischievous *passe* which Oberon the fairy king practised on his wife Titania, and the odd display of somnambulism by the latter, are familiar to every reader of the 'Midsummer Night's Dream.' Apropos, when, in the same piece, the poet says—

> "Love looks not with the eyes, but with the mind;
> And therefore is wing'd Cupid painted blind,"

we are reminded of the creed in pagan mythology which supposed a transfer of the sense of vision doubtless to the epigastrium, as this is the centre and seat of the strongest emotions in the unhappy wight under the influence of love.

This drama is full of illustrations of the great art. In one somnambulistic group are seen Hermia and her friend Helena with Lysander and Demetrius. The common counterpasses by the noise of horns sufficed, however, to rouse them from their sleep.

But why should we continue to give the testimony of Shakspeare, when nearly every drama of his abounds with proofs and illustrations of animal magnetism. We shall conclude, therefore, in the words of the worthy Bottom, of *lion-braying* fame, as expressive both of the reminiscences and of the transfer of the senses in our somnambulists of the day. "Methought I was—there is no man can tell what. Methought I was, and methought I had,—but man is but a patched fool, if he will offer to say what methought I had. The eye of man hath not heard, the ear of man hath not seen; man's hand is not able to taste, his tongue to conceive, nor his heart to report what my dream was. I will get Peter Quince to write a ballad (pamphlet?) of this dream; it shall be called Bottom's dream, because it hath no bottom; and I will sing it in the latter end of a play before the duke."

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BRITISH ASSOCIATION FOR THE ADVANCEMENT OF SCIENCE.

The fullest report yet published of the doings of the Medical Section of "The British Association for the Promotion of Science," is contained in successive numbers of the *London Athenæum*. This will be found entire in the following pages. For its length no excuse need be offered to the reader, who is at all alive to the progress of medical science, and a lover of seasonable variety.

Much as of late the subject of the Motions and Sounds of the Heart has been discussed, the report of the Committee, and the remarks on it, will command attention. Mr. Brett's paper "On the Physical and Chemical characters of Expectoration in different Diseases of the Lungs, with some Preliminary Remarks on the Albuminous Principles existing in the Blood," is well calculated to render more precise our diagnosis of a class of diseases of constantly recurring and painful interest. Illustrative of some interesting points in the physiology and pathology of the movements of deglutition and respiration, are the experiments of Dr. John Reed, the results of which, as given in the report, are transferred to our pages. The report by Dr. Black of the Epidemic Influenza, with its accompanying meteorological tables, and the examination of the bearing of the Epidemic upon Vital Statistics and Mortality, is in very advantageous contrast with the nursery dogmatism and gossip on this disease, as found in some of the London Medical Journals and debates of its Medical Societies.

The second paper, by Dr. Holland, and the debates to which it gave rise, tend to throw additional light on the late much discussed topic of the "Influence of the Respiratory Organs on the circulation of Blood in the Chest." Of therapeutical value is the proposition, and apparatus to carry it into effect, by Sir James Murray, "to withdraw atmospheric pressure from the surface of the body, partially or wholly."

To the sceptical pathologist, and to the phrenologist, the cases recorded by Dr. Hugh Carlisle, and the remarks which followed, on the Functions of the Brain, by this gentleman, and the paper on a subsequent day, by Professor Evanson, will furnish additional materials for reflexion and inquiry. After all that has been written and said in Cholera, we believe that Dr. Mackintosh's paper on the subject will both secure and repay a perusal.

We but notice thus hastily the reports and papers which more directly attracted our notice. The reader will find many others, of, perhaps to him, not less moment, and which at any rate will serve, in connexion with the former, to make up a series of instructive facts and commentaries, calculated of themselves to impart no small value to the present Number of our Journal.*

ANATOMY AND MEDICINE.

President—William Clark, M. D.
Vice-Presidents—James Carson, M. D. F. R. S., Peter Mark Roget, M. D. Sec. R. S., Robert Bickersteth, Esq., Professor R. T. Evanson, M. D. M. R. I. A.
Secretaries—James Carson, jun. M. D., J. R. W. Voss, M. D.
Committee—Neil Arnott, M.D. F. R. S., Richard Bright, M. D. F. R. S., Hugh Carlisle, M. D., James Copland, M. D. F. R. S., Professor Richard T. Evanson, M. D. M. R. I. A., Richard Formby, M. D., Augustus B. Granville, M. D. F. R. S., John Houston, M. D. M. R. I. A., James Johnson, M. D., James Macartney, M. D. F. R. S., Charles Herbert Orpen, M. D., William Henry Porter, Esq., Charles B. Williams, M. D. F. R. S., John Yellowly, M. D. F. R. S.

Dr. Roget stated that he presided on this occasion, owing to the absence of Professor Clark, whose arrival was expected.

The second report of the Sub-Committee, appointed by the Association to investigate the Motions and Sounds of the Heart, was read by Dr. Charles Williams.

Before describing their last investigations, the Committee stated that they had found frequent opportunities of confirming the conclusions of their former researches on the natural sounds of the heart; and these conclusions not having been shaken by any subsequent experiment, or well-founded objection, the Committee consider them established; viz., that the first sound of the heart is *essentially* caused by the sudden and forcible tightening of the muscular fibres of the ventricles when they contract; and that the second sound essentially depends on the reaction of the arterial columns of blood on the semilunar valves of the arterial orifices, at the moment of the ventricular diastole. Certain other circumstances were stated, as being capable of adding to, or modifying these sounds.

The chief subjects of their present inquiry were, the unnatural, or morbid sounds, sometimes heard in the heart and arteries; and in investigating the causes of these sounds, which Laennec compared to blowing, filing, sawing, purring and cooing, or musical sounds, they sought to determine, 1st, What is the essential physical cause of these sounds; and 2d, In what manner disease can develope this physical cause—a correct answer to these inquiries would determine the value of these sounds as signs of disease.

The Committee found that they could produce precisely the same sounds in every variety, by impelling, in various modes and degrees, a current of water through India rubber tubes; and by numerous experiments, they ascertained the relations which the character of these sounds bore to the nature of the impediment, and to the force of the current. They obtained similar results on experimenting on the arteries of living animals; and discovered, that in the human subject the same sounds may be produced by simple pressure, not only in the arteries, but in the veins also. They found that the sounds heard in the neck, described by some eminent French writers under the names "bruit de diable," and "bruit de mouche," as signs of a particular morbid condition, which requires the use of certain remedies, may be produced at will, by the pressure of the stethoscope on the jugular veins of the healthiest persons, and is therefore not necessarily a sign of disease, but has probably been accidentally caused by the same pressure in many cases in which it has been considered as a morbid sign.

The Committee conclude, in answer to the first inquiry, that a certain resistance to a moving current is the essential physical cause of all the various sounds is question, and that this resistance is generally given by some pressure on, or impediment in, the tube through which the current moves; but that sometimes the resistance is caused by a change in the direction of the current, by which it is made to impinge on the walls of the vessel which contains it.

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* We find, by reference to our London Medical Journal for September, that they take the report of the London Athenæum, as the most satisfactory and as yet the fullest.

The second inquiry the Committee think can be fully answered only by extensive clinical and pathological observation, with due regard to the previous investigations; but they have planned some experiments, that promise to elucidate certain obscure points of the pathology and diagnosis of diseases of the heart and arteries, the knowledge of which would be of direct practical advantage. These points the Committee propose to investigate, if the Association think fit to re-appoint them to this office.

The thanks of the Section were voted to the Sub-Committee, and the members were requested to continue their labours.

Dr. Copland said, the Report stated that the heart beat after the cessation of respiration, which he believed, for the heart was the *ultima moriens.*—Dr. Carlisle concurred with the Report in its general view as to the cause of the sounds of the circulation in tubes from obstruction to the course of the fluid current, but differed from them on the explanation of the systolic sound, which, in his opinion, was owing to resistance from the irregularities of the heart's surface. The heart, in these cases, was *ultima moriens*, and would act, though it contained no blood, contrary to Bichat's opinion.—Dr. Granville could confirm, from his experiments with poison, chiefly prussic acid, the solitary instance adduced by Dr. Williams, of the beating of the heart on the cessation of respiration, and that it continued its action, though without blood. He found, and five other gentlemen were present timing with their watches, that in seven experiments on animals made in London, the fibres of the heart were alive after the death of the lungs (*i. e.* if life could be pronounced from dilatation and contraction)—in one case five minutes, in a second eight minutes, in a third eleven minutes; and on touching with a scalpel to a much longer period; and in this case not a drop of blood was contained in the heart. The action was not owing to blood or fluid, but was merely mechanical; and it was found, in dogs and cats destroyed by prussic acid, that, on opening the cavity of the chest and abdomen simultaneously, respiration had ceased, the lungs collapsed, but the heart beat, and the intestines acted peristaltically. The heart, as a muscle, does most certainly survive respiration, and is the *ultima moriens.*

Dr. Johnson said the Report concluded that all abnormal sounds were indicative of disease or morbid obstruction; from which he must dissent. He believed the excess of the velocity of the circulating fluid was sufficient to account for it, without the supposition of any obstruction from morbid contractions, and other impediments in the arterial tubes. He was, himself, an instance of the truth of this; for when his circulation was increased, either by excitement, food, or running, he had heard these sounds in himself, and he had equally verified it by observations on others; he could not, therefore, consider these sounds as certainly abnormal. He would ask Dr. Williams, if a trial had been made of the effect of velocity of fluids through tubes with the view of ascertaining sounds? —he would ask, if sound was produced at the extremity of the vessel, why is it not heard in the diastole of it, the blood issuing, as some say, in jets, or from reflux?—Dr. Williams stated, in answer, first, that the Committee had examined this subject physically, when they found some contraction, or obstruction, or bend, was necessary for the production of the murmur and other sounds; but that they had not entirely sifted the physiological part of the subject, though he believed that their physical labours were applicable fully to the physiological. To have sounds in currents, there must be some resistance, as friction. In the natural condition of the vessel, this increased velocity of Dr. Johnson's might create friction, from want of dilatibility causing the murmuring sounds; and he would certainly recommend Dr. Johnson and his friends not to repeat their experiments frequently—at least, on themselves. To Dr. Johnson's second question—why is there not sound in a continuous current?—it would depend on the pressure; according to its degree, so would be the sound—if considerable, the *bruit de diable.* He now wished to refer to the objections of Dr. Carlisle. In last year's Report, they attributed the essential sounds of the heart to the muscular action of the heart, not to the blood; for they found the sounds perceptible, but in a diminished degree, without blood. In answer to the question, why the sounds of the heart should differ from those of the artery, he should say, the motion of the heart was only commencing, had not yet acquired momentum, and the blood was expanded over a large surface—that the ventricle contracted towards a centre, which was the artery—and that there was very little friction on the internal surface of the heart, though he could not tell how much to attribute to the *Carneæ columnæ* alluded to by Dr. Carlisle; but if examined, they would see very little irregularity where the blood converged, the principle being towards the bottom. The blood run with a different momentum in the arteries than it did in the heart, being only about three inches in half a second, and the slightest obstruction must, therefore, oppose it, while in the heart the blood moved as the muscle of the heart contracted, and other obstructions moved. As to the character of the sounds, they resembled those of natural objects, and the natural differed from the morbid. The natural was a dumb percussive sort of sound, the morbid was whizzing, giving an idea of friction—filing, sawing, rushing, and so on, which an accustomed ear could distinguish with precision—Dr. Williams replied to a question asked by Dr. Granville, that the general result of their investigations led to the conclusion that velocities of motion did not alone produce sound; there must be some obstruction, some resistance.

Mr. Brett then read a paper "On the Physical and Chemical characters of Expectoration in different Diseases of the Lungs, with some Preliminary Remarks on the Albuminous Principles existing in the Blood."

The remarks on the blood referred more particularly to a general view of the albuminous principles existing in that fluid. The simplest view which could be taken of the vital fluid, is that which refers its constitution to a mixture of fluid, or soluble, and insoluble albumen,—the one constituting what is termed the serum, the other the crassamentum, or cruor. The author of the paper then proceeded to relate the different opinions which had been published on the specific gravity of the blood, quoting the statements of Berzelius, Gmelin, Dumas, and other chemical philosophers of distinction; at the same time remarking, that all these statements did not differ materially from each other, and might be considered as depending upon the fact, that the specific gravity of the blood might differ slightly, not only in different individuals, but in the same individual at different times. He then noticed the different modifications of albumen existing in the serum, which he divided into three forms:—1st. Soluble or free albumen, capable of undergoing coagulation by heat; 2dly, Albumen in combination with a basic body, viz. soda; and, 3dly, A form of albuminous matter, which he termed the colourless self-coagulating albuminous principle.

The crassamentum, as it is commonly called, of the blood, he also considered as made up of more than one form of *solid albuminous* matter; viz. of solid albumen capable of undergoing decoloration by ablution with water, and of solid albumen incapable of being decolorated by the same process; the former being insoluble, and constituting what is commonly understood under the name of fibrin, the latter soluble in water, and frequently designated red particles of *hæmatosine*. Some remarks then followed on the microscopic examination of the blood, and on the different forms of the globules in different animals. The author then proceeded to detail the various physical characters of the expectoration in the healthy condition of the lungs, as well as in its varied morbid states. The physical characters of saliva were entered upon, and the globularity of its opaque portions alluded to. The physical characters of expectoration in the pituitous catarrh of Laennec were then detailed; also those of the expectoration in acute and chronic bronchitis—in hæmoptysis, or pulmonary apoplexy—in pneumonia—and lastly, in different stages of phthisis. The chemical characters of these different modifications of expectoration were then fully treated of, and reference made to a tabular arrangement which the author had embodied in his papers, exhibiting the action of certain re-agents—first, on saliva, and then on the different forms of sputa, the physical characters of which had been already fully noticed. It was remarked, that saliva did not contain any soluble albumen capable of undergoing coagulation by heat; neither did it contain any solid albuminous matter, the main bulk of the solid contents of that secretion being mucous. The mode of analysis adopted, was, to deject saliva in cold water, and then subject the filtered fluid to the action of certain re-agents; another portion of saliva was then dissolved in a caustic alkali, and the alkaline solution subjected to the agency of certain tests. The quantity of solid matter in a given weight of saliva was also announced, as well as the saline matters, and their chemical nature stated: different authorities bearing on the subject were quoted, especially the statements of Berzelius and L. Gmelin. The chemical characters of expectoration in pituitous catarrh were then described, and a mode of analysis was stated to have been adopted, analogous to that employed in the case of saliva: this modification of sputum was regarded as purely mucus, possessing no albuminous matter; it was found to contain a very small proportion of solid matter in a given weight, but the quantity of saline matter was found to be considerable, when compared with the quantity of solid matter; and this saline matter the author's experiments lead him to conclude was diminished in quantity as the disease progressed. The chemical nature of sputum of the acute and chronic bronchitic character was then entered upon, and noticed as differing in certain respects from the preceding form of expectorated matter, in containing, for example, a much larger proportion of solid matter in a given weight than was found in simple pituitous expectoration, and generally a smaller proportion of saline matter; it also differed in containing, generally speaking, small quantities of soluble albumen capable of undergoing coagulation by heat.

Pneumonic expectoration was then treated of, and noticed as principally made up of a tough mucoid secretion intermixed with blood, to which last was owing its peculiar rust or brick-red colour, and also its powers of undergoing, to a certain extent, coagulation by heat when mixed with water and filtered; it was also found to differ from most other forms of expectorated matter, in containing no inconsiderable quantity of oxide of iron, derivable from the blood with which it is impregnated. Phthisical expectoration was the last form of sputum, the chemical characters of which were described. It was noticed as differing materially in different stages of the disease—in the earlier and middle stages scarcely not at all—for the most part, at least, differing from the expectoration met with in chronic or acute bronchitic affections: in the latter stages, however, not unfrequently possessing the characters of a simple collection of puriform matter, containing very large quantities both of soluble, and solid or insoluble albumen, much solid matter also in a given weight, with the ordinary saline matters found in other varieties of sputa, superadded to which was a notable proportion of oxide of iron. It was stated, that in no disease, except phthisis, did the expectoration contain so much soluble albumen capable of undergoing coagulation by heat; and also in no disease, except pneumonia, was there so large a proportion of solid matter in a given weight of the expectoration: this observation referring however to the sputum in the latter stages of phthisis, where it puts on the character of a collection of puriform matter. Allusion was then made to the fatty matter existing in expectorated fluids, which was found to be the same in quality in almost every variety of sputum, but differing in quantity, being much greater in quantity in well-marked phthisical expectoration, than in any other variety. The fatty matter was peculiar, too, from the high temperature which it required for its fusion, it being considerably higher than that necessary for the fusion of the more ordinary forms of fatty matter, and even higher than that required for cholesterine: this fatty matter was soluble in alcohol and ether, being deposited from the former when its boiling solution cooled. The author also referred to the power which a galvanic current, even of low intensity, possessed of coagulating the aqueous fluid, obtained either by digesting saliva, or any of the modifications of expectorated matter before alluded to, in water, and filtering the fluid. This coagulation was not regarded by the author as proving the presence of albumen, because, in cases in which the galvanic current effected the change in question, the most delicate re-agents with which chemists are acquainted for the detection of albumen, failed to detect the slightest trace. The author then detailed his experiments on crude and softened tuberculous matter; he submitted the former to the action of the same re-agents as he employed to re-act upon ordinary fibrin, and was led to conclude that the crude tubercle did not differ chemically from solid albumen or fibrinous matters. The mode of analysis employed in examining the crude and softened tubercle was the following—it may be observed, that the crude tubercle was examined side by side with the ordinary fibrin: the crude tubercle was dissolved in a weak solution of caustic potass; a similar solution of fibrinous matter was obtained, and both submitted to the action of the same re-agents, with results as nearly similar as possible. The agents employed were the mineral acids, acetic acid, and ferrocyanide of potassium, tinct. galls, corrosive sublimate, &c. The softened tuberculous matter was first dejected in water, and then filtered; the filtered fluid, when submitted to re-agents, was found to contain soluble albumen,—that portion of the tubercle insoluble in water, was dejected in a weak alkaline fluid, by which a solution was obtained. This alkaline solution, when submitted to the necessary re-agents, indicated the existence of solid albuminous matter or fibrin; hence, the softened tubercle was regarded as analogous in its chemical characters to purulent matter. Experiments were then made on the tuberculous matter which had undergone perfect softening, and the result was, that the latter was chemically identical with pus; from which it was deduced, that fibrinous matter was, by a process of softening or fluifaction, converted into actual pus, and hence a fruitful source of the abundantly albuminous fluid found in the expectoration of patients in the latter stage of phthisical disease. The author then concluded his paper, by stating the results of a quantitative analysis of the expectoration of a marked puriform character, obtained from a patient in the last stage of phthisis. It was found to consist of: water—albuminous matter, with a little mucus—extractives, soluble in alcohol; ditto, soluble in water; fatty matter—saline matters, consisting of the alkaline chlorides, phosphates and carbonates, with earthy phosphates and oxide of iron.

Dr. Williams expressed his gratification that the labours of so expert a chemist had been directed to so important a branch of science as animal chemistry, which had been strangely neglected and almost overlooked. This he lamented the more, since the subject would promote both the theory and practice of medicine. He would, however, ask Mr. Brett if he had observed in his microscopical experiments in early phthisis, what the French had detected in the sputa, a sort of downy substance, peculiar to the very early stages of this disease, and only observable through the microscope—indeed it was a microscopic phenomenon. It was a novelty to him, that tubercles by softening, as mentioned by Mr. Brett, assumed globular forms of which they were devoid at the commencement; a fact confirmed by Gmelin. This paper pleased him, for it further assured him of the truth he had taught, that softening was a modification of suppuration,—a conversion of albumen into pus. There was a total absence of organization in tubercle.—Mr. Brett had not observed the microscopical flocculent and woolly appearance, for his attention had not been so directed.—Dr. Williams explained, that it did not resemble flocculi, but was, he considered, a microscopical appearance only.—Mr. Brett had made his microscopical observations on what was obvious to the naked eye, and opaque portions of these secretions he found to be globular, not so perfect in cheesy suppurations as in those of other characters.—Mr. Williams inquired what was the opaque compound in saliva.—Mr. Brett answered, it might be a modification of albumen, but he could not say exactly.—Dr. Roget remarked, that the paper made it appear that the formation of globular inexpectorated matter was spontaneous.—Dr. Williams stated, that the belief of this sort of globular formation might be supported by the circumstance of its production in serum, after it had been some time at rest, which had been shown by Dumas and Sir Everard Home.—Mr. Brett did not consider the cases parallel, since serum was highly albuminous, and this expectoration not.—Dr. Johnson thought, that independently of the chemical acumen, the paper would be of value to practitioners, on account of the physical character of expectorated matter, of which there were three modifications:—1st. Mucus, from intensity of disease in the bronchia. 2d. Tuberculous matter softened down, and escaping into the bronchial tubes, or entirely discharging from them. 3d. Secretion of purulent matter from excavated surfaces, scarcely distinguishable from the matter of abscess, or the after discharge from the depôt, by which he meant the matter secreted after the first contents of an abscess had been discharged.—Mr. Golding Bird, after alluding to Mr. Brett's experiments, and drawing the attention of the Section to those parts which particularly merited the attention of practitioners, offered a suggestion, in explanation of the circumstances mentioned by Mr. Brett, in which mucus, previously limpid, became opaque and deposited globular masses of albumen, after a few hours' exposure to the air; as well as of the fact alluded to by Dr. Williams, viz. the circumstance of serum of blood becoming opaque and depositing globules by exposure. The rationale of these two facts Mr. Bird conceived might depend upon the action of carbonic acid upon albumen, and upon alkaline albuminates, first pointed out by him in a series of papers published in the *Philosophical Magazine*. In the case of mucus, he believed that a notable portion of albumen was present, held in solution by carbonic acid, and that, by exposure to air or to an atmosphere of hydrogen, this solvent was abstracted in an exceedingly gradual manner, in consequence of which, albumen was deposited in the form of rounded particles. In the case of serum, the converse Mr. Bird believed to take place; for, as Mr. Brett has shown, in his paper, this fluid to contain, independent of free albumen, a small portion of albuminate of soda, it appeared reasonable to suppose, that the carbonic acid present in the atmosphere acted on, and decomposed this compound, forming carbonate of soda, and causing the deposition of albumen in a globular form. This hypothesis, moreover, serves to explain the fact of serum, previously neutral, becoming alkaline after a few hours' exposure, for the albuminate of soda previously existing, is without action on test papers, whilst the carbonate of soda, produced in the manner above mentioned, is fully capable of producing an alkaline effect on turmeric paper. This explanation is in direct accordance with the experiments related in the *Philosophical Magazine*, before alluded to.

Dr. Carson in the chair.—Dr. Holland read a paper "On the cause of Death from a blow on the Stomach, with remarks on the means best calculated to restore animation suspended by such accident."

The writer commenced by stating, that the occurrence of death from a blow on the stomach has never received any full or satisfactory consideration. It is cursorily alluded to in treatises in which cases of sudden death, from a supposed impression made upon the nervous system, are discussed; and it is mentioned in this connexion, from being imagined to depend on the same mysterious cause. The cause of death from a blow on the stomach is referred to a shock communicated to the nervous system, by which the action of this organ is arrested. The primary impression is considered, by some, to be made upon the semilunar ganglion. The situation which this occupies, and not any peculiarly intimate connexion which it has with the heart, has suggested this explanation. Were it unequivocally shown that the heart derives its contractile power from this ganglion, and that this is injured, or in any way affected by the blow, cause and effect would be too indissolubly united to admit of dispute. No one has, however, shown that the heart receives its nervous energy from such source, nor are there any facts demonstrating that this ganglion is injured, or its functions disordered by a blow. No distinct evidence is, indeed, presented, proving that this occurs; writers on this subject speak only of suspended or deranged nervous action, and the effects of a shock on the nervous system.

The circumstances which have led to the adoption of the prevailing notion may, perhaps, be reduced to three:—1. Situation of the ganglion. 2. The spot where the blow is received. 3. And the consequent fatal effect. These circumstances are the only reasons adduced; and yet, without other corroborating facts they are scarcely deserving of notice. If the plexus or semilunar ganglion be considered as a centre of nervous energy, this does not supply the heart or chest generally, but, indeed, the aorta and abdominal viscera; and hence a blow on the pit of the stomach, were its effects transmitted directly through the nervous system to the organ supplied by it, would be more likely to disturb the functions of these viscera than the action of the heart. It is not unphilosophical to contend, that an injury inflicted on this centre will disturb the organs dependent upon it; but the heart receives nervous influence from the brain, spinal cord, and sympathetic nerve, previous to the formation of the lunar plexus, or ganglion; and, therefore, if affected through either, it cannot be explained to depend on the deprivation of nervous fluid, but on the transmission of an impression or undulation.

In entering upon this inquiry, the first step was to determine the important organs peculiarly liable, from their situation and functions, to be deranged by a blow on the stomach. Those were the aorta and vena cava ascendens. The pit of the stomach is unquestionably the situation where these large and important vessels are alone liable to severe functional derangement from a blow. Above this point they are securely protected by the parietes of the chest, and below it by the mass of abdominal viscera. A blow in this situation has necessarily a tendency, whether it strike the artery or the vein, to urge the circulating fluid towards the heart. Nature, by means of the semilunar valves, has prevented the frequent occurrence of such an accident; but the violence of the blow is quite sufficient to overcome this obstacle or barrier to the retrograde motion of the blood. The fatal result is to be referred to the sudden propulsion of arterial fluid into the left ventricle, and not to the greater force with which the venous blood may possibly be returned to its destination. In discussing this subject, there are three points to which especial attention should be given. 1st. Is the aorta so situated as likely to be influenced in the manner stated? 2dly. Would a blow, given with great violence, cause a retrograde motion of blood, and its entrance into the left ventricle? 3dly. Would the latter circumstance be sufficient to cause death?

The latter part of the paper was occupied in endeavouring to establish the principles laid down; showing, that death from a blow on the stomach is not, as has always been considered, referable to any injury or impression made on the nervous system.

Dr. Copland required an explanation of three questions. Had Dr. Holland observed the morbid appearances after death from blows of the stomach? 2dly, Is it possible to produce the retrograde motion of the blood from the part of the artery impinged to the heart without rupturing the semilunar valves? 3dly, Had Dr. Holland much experience of the treatment?

Dr. Holland knew that his views admitted of discussion and of objection, since they differed so widely from the received notions. He had only observed one case, and it was fatal. The post mortem examination showed a florid appearance of the mucous membrane of the stomach, especially at the pit, not unlike what is observed during digestion. The blood was fluid. With regard to the rupture of the valves, he could present no facts; but, in his opinion, the valves would not be seriously injured, and failure in resuscitation could not be attributable to the state of the valves.—Dr. Copland had not himself witnessed the morbid appearances of sudden death from a blow on the stomach, but several such were on record, which were sufficient to show the influence of the ganglionic nerves. He thought retrogradation of the blood's current, as mentioned by Dr. Holland, could not take place without a rupture of the valves, or even of the heart itself. The heart could be injured in these cases physically, from the diaphragm as well as the vessels; but, in considering this kind of death, we are not to attribute its cause to any part of the body singly, but to take a comprehensive view, and to take in the whole collectively—the respiration—circulation—epigastrium—ciliary plexuses of nerves—though one might be more injured than another.—Dr. Johnson had had his attention directed to this subject from an early age. At school there was a boy a great pugilist, who, in his rencontres, gave what he called his heart-ing, meaning a blow over the region of the heart. The first, and principal effects, were a sudden suspension of respiration, which was relieved and followed by gasping, the heart, oppressed, did not cease its action, for, if it did, deliquium animi would ensue: the pain was very peculiar. He agreed with Dr. Copland as to the cause of death in these cases, and could not conceive that a forcible impression of the aorta could throw the blood back, and force the valves; for in dead bodies this was difficult, though the valves were then flaccid, and here it was said to occur to the living—being still more difficult.—Sir James Murray had seen two cases of suspended animation from blows on the stomach; one recovered, and the other died. The remedy he should recommend, would be to throw a bucket of cold water over the body—gasping would ensue, and respiration follow. He could not agree with Dr. Holland, more especially when he considered the slight influence the small quantity of forced blood would exert. A space of the artery, equal at most to about two inches, would be struck—the blood contained in one inch would be distributed downwards through the iliac arteries to the extremities, where space enough was found; and the other inch of blood sent upwards, would find a much greater space through all the vessels of the chest and upper extremities. He would not deny that an inch of blood above the healthy quantity, suddenly propelled into the heart might injure that organ, but thought there was not enough to injure the heart and vessels, as they must be, from sudden violent blows on the stomach.—Dr. Williams had not read any author who gave a satisfactory account of the effects of blows on the stomach, but he agreed in opinion with Dr. Copland. He had paid particular attention to the semilunar valves, and must differ from Dr. Johnson. They are perfectly mechanical, and act in the dead as in the living bodies. They completely stop all entrance to the heart, and must be ruptured for entrance there. Dr. Williams then alluded to death from syncope, by poisons, crushing of the limb, ingestion of cold water,—and concluded by recommending treatment by diffusible stimuli.

Dr. John Reid then gave an account of an experimental investigation into the Glosso-pharyngeal, Pneumogastric, and Spinal Accessory Nerves. This communication was stated by Dr. Reid to contain merely a short epitome of some lengthened remarks, which he had drawn up on the subject, but it embraced the principal results, deduced from the numerous experiments which he had performed upon those complicated and important nerves, generally included under the eighth pair.

Glosso-pharyngeal Nerve.—The experiments on this nerve were all performed on dogs, and were twenty-seven in number. Seventeen of these were for the purpose of ascertaining if it was to be considered a nerve both of sensation and motion, and what were the effects of its section upon the associated movements of deglutition, and on the sense of taste. The other ten were performed on animals immediately after they had been deprived of sensation, with the view of ascertaining more accurately how far it is to be considered a motor nerve. The phenomena observed in these experiments were first stated; and the conclusions drawn from a review of the whole of the data thus obtained, were these:—first, that this is a nerve of common sensation; second, that mechanical and chemical irritation of this nerve before it has given off its pharyngeal branches, or of any of those branches individually, is followed by extensive muscular movements of the throat and lower part of the face; third, that the muscular movements thus excited, depend, not upon any influence extending along the branches of the nerve to the muscles moved, but upon a reflex action, transmitted through the central organs of the nervous system; fourth, that these pharyngeal branches of the glosso-pharyngeal nerve possess endowments connected with the peculiar sensations of the mucous membrane, upon which they are distributed, though he cannot pretend to say positively in what these consist; fifth, that this cannot be the sole nerve upon which all these sensations depend, since the perfect division of the trunk on both sides, with removal of a considerable part of it (if care be taken to exclude the pharyngeal branch of the par vagum, which lies in close contact with it), does not interfere with the perfect performance of the function of deglutition; sixth, that mechanical or chemical irritation of the nerve, immediately after an animal has been killed, is not followed by any muscular movements, provided care be taken to insulate it from the pharyngeal branch of the par vagum; seventh, that the sense of taste is sufficiently acute after the perfect section of the nerve on both sides, to enable the animal readily to recognize bitter substances; eighth, that it may probably participate with other nerves in the performance of the function of the sense of taste, but it certainly is not the special nerve of that sense; ninth, that the sense of thirst does not depend entirely upon this nerve.

Pneumogastric or Par Vagum Nerve.—From the results of thirty experiments on this nerve, he is satisfied that severe indications of suffering are generally induced by pinching, cutting, or even stretching this nerve. Powerful respiratory movements were excited in some of the animals, when the trunk of the nerve was compressed for a few moments by the forceps.

Pharyngeal Branches of the Par Vagum.—From seventeen experiments performed on dogs, either when alive, or immediately after being deprived of sensation, he concludes, that these are the sole motor nerves of the constrictors of the pharynx, the stylo-pharyngeal and palatine muscles; and that the sensitive filaments contained in these branches of the par vagum are exceedingly few, if under ordinary circumstances they exist at all.

Laryngeal Branches of the Par Vagum.—From his experiments on these nerves, repeated and confirmed in various ways, he concludes, that all the muscles which move the arytenoid cartilages, receive their motor filaments from the inferior laryngeal or recurrent nerves. That one only of the intrinsic muscles of the larynx receives its motor filaments from the superior laryngeal, viz. the crico-thyroid muscle, and that consequently, the only change which this nerve can produce upon the larynx as a motor nerve is, that of approximating the cricoid cartilage to the thyroid,—in other words, of shortening the larynx; and that the sensations of the larynx depend upon the superior laryngeal nerve. These experiments are completely subversive of the statement of Majendie, that the inferior laryngeal nerves supply those muscles only which open the glottis, while the superior supply those muscles which shorten the glottis. They also illustrate in a very satisfactory manner the causes of the dyspnœa, amounting in some cases to strangulation, when the inferior laryngeal nerves are cut or compressed.

He has also satisfied himself, that when any irritation is applied to the mucous membrane of the larynx in the natural state, this does not excite the contractions of these muscles, by acting directly upon them through the mucous membrane, but that this contraction takes place by a reflex action, in the performance of which the superior laryngeal nerve is the sensitive, and the inferior laryngeal is the motor nerve. He is also convinced that the muscular contractions of the œsophagus are not called into action by the ingesta, acting directly as an excitant upon the muscular fibre, through the mucous membrane, but by a reflex action, part of the œsophageal filaments acting as sensitive, and others as motor nerves. Our space will not permit us to state any of the results obtained from the experiments on the other branches of the par vagum.

Spinal Accessory.—This nerve was cut across in seven dogs at its exit from the cranium, and no effect upon the voluntary movements of the muscles of the neck could be observed. In other animals the nerve was first cut across on one side, and then a weak dose of prussic acid given. This was frequently followed by powerful, slow and regular respiratory movements, during some of which distinct contractions of the sterno-mastoid muscle were observed in unison with the other muscles of inspiration.

The next paper was entitled "Observations on the Structure of the Sacrum in Man and some of the lower classes of Animals," by Hugh Carlisle, M. D.—Mr. Carlisle exhibited to the Section several anatomical preparations of the human sacrum in different states of growth, in which the separate formation of the lateral parts, consisting both of ribs and of transverse processes, was distinctly shown. The analogous structure in certain classes of reptiles were displayed by means of preparations and original drawings, and the errors of descriptive anatomists on these subjects were pointed out. Mr. Carlisle showed that some of the saurian reptiles afford the best examples of distinct and well-developed sacral ribs, although this peculiarity in their structure has been wholly overlooked by previous anatomists. In these animals the sacral ribs are two in number on each side, the anterior being articulated to the bodies of the last dorsal and the first sacral vertebræ, and to the inter-vertebral fibro-cartilage, the posterior to the last sacral and the first caudal vertebræ. In the human subject the sacral ribs are four on each side, and they remain in a separate and distinguishable state until the age of from three to seven years, after which period they are all, except in rare instances, consolidated with each other and with the bodies and transverse processes of the sacral vertebræ. The os ilium in the fœtal state, and for some years after birth, in the human subject, is connected to only the first two at each side of the sacral ribs, a fact which is consistent with the imperfect development, at that period, of the lower extremities, and with the disposition, at an early age, to walk on all fours, and which affords an additional example to those already known of the similarity which prevails between the temporary forms of certain parts of the human body and the permanent dispositions of the corresponding parts in animals of a lower class. In many of the quadrumana, of quadrupeds, and of reptiles, two is the number of sacral ribs constantly in apposition with the os ilium: in the human subject, at a more advanced period of growth, the os ilium at each side is connected by a cartilaginous intermedium to the extremities of three sacral ribs, and, in one instance, in the skeleton of a negro, Mr. Carlisle observed it conjoined to four. This communication was concluded by some observations on the peculiarities of structure exhibited in the skeletons of the Testudo Græca and the Testudo Midas, the former of which Mr. Carlisle considers to possess *two* sacra, one for the posterior and one for the anterior extremities; while the latter has but one sacrum belonging to the posterior extremities, and, possessing a more extensive range of motion in the anterior, presents in them nearly the same mode of junction to the spine which prevails in birds and some quadrupeds.

A paper was then read by Dr. Black, on the Epidemic Influenza which occurred this spring at Bolton; but as it contained some important tables, requiring great care to insure accuracy, we defer our report until next week.

Wednesday.—The first paper read was by Dr. Mackintosh, "On Dysmenorrhœa."—An account of this will be given in a subsequent number.

Sir James Murray then read a paper, in continuation of a former one, published in the *Dublin Medical Journal* for July, 1836. His object was to show, that a great variety of disordered conditions of the nerves, and of the vital organs, result from the presence of urinary secretions in the circulating fluids. In two cases of fatal neuralgia, one tic douloureux of the thumb, he found the investments of the nerves studded with microscopic crystals. The crystals had the same constituents as those sometimes observed in the sediments of urine. Crystalline frost-work has been lately observed in the heart, brain, and other organs, by Mr. George, and in the membranes of the bowels by Professors Harrison, Apjohn, and others. Great constitutional and local irritation, he considers, is sometimes created by the acrimony of saline solutions remaining in the solids and fluids of the body; and, as these extraneous substances do not amount to tangible particles and concretions, that the presence of unsaturated alkaline or acid re-agents, maintain many obstinate disorders—as hysteria, some kinds of asthma, indigestion, &c. He had detected uric acid, urea, and many other excretory substances in obstinate sores, in discharges from the eyes, in the incrustations of *Tinea capitis* and *Lepra.* He also thought the tubercles deposited in the lungs, and composed of the substance called soluble extractive, animal matter of a similar kind. When this matter meets oxygen in the lungs, it is deposited in a solid state of various consistency. The various oxides it meets with in other parts of the body, render it insoluble, and it is found embedded in many other parts, but not so frequently as in the lungs. The elements of these extraneous matters are not always separated by the kidneys, and untoward chemical combinations are frequently set up by the presence of acid or exciting atoms not duly excreted from the fluids.

He proposed to neutralize or precipitate these impregnations by baths, acid or alkaline, as were required, and to try to obtain precipitates in the urine similar to those which pass off in the crises of fevers and acute rheumatism. Sir James concluded by lamenting, that the ridicule thrown upon such examinations by the mystical and pretended diagnoses of charlatans, had deterred medical men from examining the secretions with sufficient precision; but hoped that the difficulty of this inquiry would no longer retard the investigations of such prominent signs and causes of disease.

Dr. James Johnson said, that the examinations recommended by Sir J. Murray were becoming more and more common. He could not attribute the state of the body impregnated with the kinds of salts described in the paper, to the cause assigned by Sir James Murray. The cause, in his opinion, was rather a defect of action in the kidney, than absorption—not but that absorption and re-absorption of urea and uric acid would take place as described.

The Secretary then read a paper by Dr. Madden, communicated by Professor Alison, being "Experiments on the connexion between Nerves and Muscles." The author began by stating, that two different opinions on the subject of his paper were entertained—the one by Dr. Whytt, and the school of neuralogists who attribute muscular motion to nerves and irritants, mechanical or chemical, which excite motions through nervous agency; and the other, that the power was inherent in the muscles themselves, the nerves being only conductors. He had been in consequence induced to institute a series of experiments; and he now detailed a great number on the nerves, muscles, and heart of frogs, by galvanism, mechanical irritations, by immersion, and application of narcotic solutions, and by the internal administration, or rather putting into the mouth, of prussic acid, carefully timing the progress. These were thought to bear out the following conclusion, at which the author arrived. When we see narcotics have, by no means, a destructive influence on irritability, nor on nervous trunks, no change on muscular fibre—when we see nerves cease to excite contractions *long before* muscles themselves have lost their irritability, their number and size bearing no proportion to irritability—when we see many muscles insensible to the irritation of nerves, and that a muscle with a divided nerve can recover its exhausted irritation in so short a time, and so perfectly, we must withhold our confidence in neuralogy, and believe that muscular contractility is not dependent on nervous influence.

The Secretary then read a paper from Dr. O'Bryan Bellingham, "On the order of the succession of the Motions of the Heart." On performing some experiments on frogs, his attention was directed to the order of the progressive motions of the heart, which was in opposition to that given by Dr. Hope, and the one usually received, which is the following:—

1st. motion the auricular systole.
2d. — ventricular, with impulse, and no pulse.
3d. — ventricular diastole.
4th. — interval of ventricular repose, towards the termination of which auricular systole takes place.

While the experiments and observations of Dr. Bellingham showed the following:—

1st. was the auricular systole.
2d. — ventricular diastole and impulse.
3d. — ventricular systole.
4th. — interval of ventricular repose towards the termination—auricular systole.

He found, that in duration of time the diastole of the ventricles occupies double the time of the systole, and the interval of repose equalled nearly the time taken up in the systole.

With respect to the sounds, he found the

1st. synchronous with ventricular diastole.
2d. — ventricular systole.

Dr. Williams said these experiments had been described long ago. They were formerly supported by Dr. Corrigan, who had publicly abandoned them. They were true as to frogs, but *not* of warm-blooded animals—they were not tra in the human subject, and the analogy which the author implied between the progressive motions of the heart of frogs and man was utterly impossible.

The next paper was entitled, "Observations on the disease called Cocobâe by the Africans, or Arabian Leprosy, the Ara-apatta of the Caribes of Guiana, the Radesyge of Northern Europe; and on the Methods found most effectual in the treatment," by Dr. John Hancock.—Dr. Hancock considered that Lepra Arabum, Cocobâe of the Africans, Ara-apatta of the Caribes of Guiana, as identical, and to consist in a vitiated state of the blood and serous fluids, with obstruction of the absorbing and secerning vessels, with a peculiar diathesis, forming under the skin tubercles, knobs, and indurations, which characterize the disease. The progress being slow, the humour solidifies almost as fast as it transudes. Dr. Hancock had never known this disease to be communicated by husband to wife, or *vice versâ*. This, with many other circumstances, induced him to believe that the disease was not contagious. The disease, in its early stage, is curable, though considered to be incurable: the unhappy subject is regarded with suspicion; and when the disease is fully established, the sufferer is obliged to be sent to some retired part of the colony. Bathing, salines, and anodynes, were recommended. The Indians, especially the aborigines of Guiana, resort to fomentations, baths, and a drink of the bark of a tree called Mouca, with the root of a vine, Paramaroora, a species of *Cissus*, and the bark of Waiacano (guiacum), the infusion of which is fermented with honey. They use, also, the bark of the tree "tamootu," a nondescript.

We now give our promised abstract of the Report read on Tuesday, by Dr. Black, on the Epidemic Influenza, as it occurred at Bolton-le-Moors, in January, February, and March of this year, and which principally referred to the Meteorology of the season, and to the question how far the Epidemic bore upon vital Statistics and Mortality.

After a summary of the principal pathognomonic symptoms which characterise the disease in its more severe and fatal forms, with a short notice of *post mortem* investigations, and the treatment generally adopted, Dr. Black proceeded to say, that to the medical philosopher, the extent and intensity with which the epidemic bore upon the population of the country, along with the ratio of mortality which marked its progress, as well as the meteorological state of the weather, which preceded and accompanied its march over the kingdom, were subjects of great, and of historical interest, especially when compared with the nature and progress of former epidemics of the kind, and with the rise, abode, and intensity, in other places, of the same epidemic. For the purpose of elucidating these important and relative matters under which the disease appeared and prevailed at Bolton, he obtained a correct register of the weather in its principal meteorological conditions, for the months of January, February, and March of this year, during which the epidemic appeared, prevailed, and decayed at that place, to which he had added a column exhibiting a scale of the epidemic's rise, maximum intensity, and decay. This column was constructed from the several lists of cases of influenza entered and kept by three of the principal practitioners of the place and himself; which entries for each day being added together, gave a ratio corresponding to 100 as the maximum intensity on the 3d February. To this table he also added a Mortality Register of 420 burials, and therein stated the several ages and quinquennial periods, at which the individuals died, after the fifth year, with the different amounts and ratios for the late epidemic season, as well as for the average of the same months during the five previous years.

A METEOROLOGICAL REGISTER

FOR

JANUARY, FEBRUARY, AND MARCH, 1837.

With a Nosometrical View of the Epidemic Influenza during the same Months, as observed at Bolton-le-Moors.

1837.	Mean of Morning, Noon, and Night.		At Noon.	Evaporation.	Fall of Rain.	WEATHER.	Nosometrical Scale of Epidemic Influenza. Maxm. Intensity=100
JAN.	Therm.	Barom.	Dew Point.				
1	30°.3	30.27	30°	. .	. .	Fair all day	
2	32. 3	30.12	31	. .	. .	Very foggy	.1
3	40	30.02	38	. .	. .	A little rain A.M. and P.M.	
4	38. 3	30.02	39	. .	. .	Fair	
5	36	29.62	35	. .	. .	Fair	
6	39. 3	29.19	38	. .	. .	Rain all day, some hail P.M.	.5
7	38. 3	29.37	39	. .	. .	Rain and a little hail A.M. and P.M.	
8	38. 7	29.82	35	. .	. .	Rain at night	
9	47. 3	29.68	46	. .	. .	A little rain A.M.	1
10	37. 3	29.62	38	. .	. .	Fair	
11	27. 7	29.89	27	. .	. .	Fair	1.5
12	34. 3	29.47	28	. .	. .	Snow A.M., snow and rain P.M.	
13	40. 7	29.17	38	in	in	Rain in the morning	2
14	33. 7	29.94	32	16	16	Fair	2.3
15	34	30.15	30	days	days	Fair	3.4
16	38. 7	30.05	37	0.15 in.	2.44 in.	Very foggy P.M.	4.6
17	40	29.98	38	. .	. .	Fair	9.1
18	38	29.82	35	. .	. .	Fair	14
19	37. 7	29.64	35	. .	. .	Fair	18
20	35	29.46	32	. .	. .	Fair	25
21	37	29.25	33	. .	. .	Rain at night	30
22	44	28.94	43	. .	. .	Rain all day	40
23	45. 3	29.02	43	. .	. .	Rain all day	42
24	41. 7	29.30	41	. .	. .	Rain A.M.	50
25	41	29.45	40	. .	. .	Rain all day	56
26	39. 3	29.53	37	. .	. .	Fair	71
27	37	29.68	36	. .	. .	Rainy at night	75
28	33	29.73	33	in	in	Snow at night, and a little A.M. & P.M.	80
29	32	29.57	30	15	15	Snow all day	90
30	36	29.48	34	days	days	Snow A.M.	92
31	41. 7	29.61	40	0.09 in.	1.10 in.	Rain P.M.	93
Max.	49°	30.31		Total	Total		
Min.	25°	28.88		0.24 in.	3.54 in.		
Mean	37°.5	29.638	35°				
FEB.							
1	41°.3	29.79	40°	. .	. .	Rain at night	95
2	43. 3	29.99	41	. .	. .	Fair all day	98
3	41. 3	30.03	40	. .	. .	Rain all day	100
4	41	30.07	40	. .	. .	Fair all day	90
5	37. 7	30.01	36	. .	. .	Rainy A.M. and P.M.	82
6	41	29.98	37	. .	. .	Fair all day	71
7	41	29.88	39	. .	. .	Fair all day	60
8	43	29.80	41	. .	. .	Rain A.M. and P.M.	72
9	47	29.83	44	. .	. .	Some rain at night	91
10	49	29.34	50	. .	. .	Rain all day, stormy P.M.	69
11	43. 3	28.72	50	in	in	Rain and very stormy all day	62
12	39. 3	29.02	37	14	14	Rain morning and night.	60
13	44	28.82	44	days	days	Rain A.M.	55
14	41	29.21	40	0.27 in.	2.15 in.	Fair all day	50

FEB. Continued.	Mean of Morning, Noon, and Night. Therm.	Mean of Morning, Noon, and Night. Barom.	At Noon. Dew Point.	Evaporation.	Fall of Rain.	Weather.	Nosometrical Scale of Epidemic Influenza. Maxm. Intensity=100
				0.27 in.	2.15 in.		
15	43°.3	29.62	41°	. .	. .	Rainy P.M.	44
16	52	29.65	50	. .	. .	Fair all day, stormy at night	37
17	44. 3	29.90	44	. .	. .	Fair all day	36
18	41. 3	29.44	44	. .	. .	Rain P.M. rain & hail at night	30
19	38. 3	28.95	38	. .	. .	Rain and a little snow all day, boisterous, P.M. .	23
20	42	29.19	42	. .	. .	Rain at night	21
21	41. 3	29.19	41	. .	. .	Rain at night and P.M. .	14
22	41	29.51	39	. .	. .	Rain A.M., rain and snow, P.M.	9.1
23	39	29.02	43	. .	. .	Rain, hail, and snow, very stormy P.M. and night.	8
24	39	29.64	40	. .	. .	Fair all day but boisterous	7
25	35. 3	29.95	35	in	in	Fair all day	6
26	33. 7	29.90	30	14	14	A little snow P.M.	7
27	39. 3	29.74	40	days	days	Rain at night	4.6
28	38	29.95	40	0.54 in.	2.25 in.	A little rain P.M.	4
Max.	56°	30.10		Total	Total		
Min.	30°	28.60		0.81 in.	4.40 in.		
Mean	41°.4	29.57	40°.9				
MARCH							
1	34°	30.19	32°	. .	. .	Fair all day	3.4
2	37. 7	30.10	32	. .	. .	A little rain P.M. and at night.	3.5
3	40	30.08	41	. .	. .	Slight rain A.M. and P.M.	4.6
4	39	29.95	39	. .	. .	Fair all day	4.
5	37. 3	29.71	39	. .	. .	Slight rain A.M. and P.M.	3.5
6	39. 3	29.77	37	. .	. .	Fair all day	3
7	40	29.85	37	. .	. .	Ditto	2.3
8	42	29.83	38	. .	. .	Fair all day, but strong wind P.M. and night . . .	2.2
9	45	29.57	39	. .	. .	Slight rain P.M. and night	2
10	41. 7	29.00	40	. .	. .	Rain P.M. and stormy . .	1.2
11	36	28.95	34	. .	. .	Snow and rain P.M. . .	
12	36. 3	29.23	35	in	in	Rain and snow at night .	
13	36. 3	29.85	38	15	15	Snow A.M.	1
14	37	30.17	32	days	days	Fair all day	
15	37	29.99	33	0.38 in.	0.20 in.	Ditto	1.2
16	40. 3	29.92	36	. .	. .	Ditto	
17	41. 7	30.08	38	. .	. .	Ditto	
18	37. 7	30.02	37	. .	. .	Slight sleet at night . .	
19	37. 3	29.85	33	. .	. .	A little snow A.M.	
20	35	29.78	38	. .	. .	Snow all day	1.3
21	37. 3	29.55	32	. .	. .	Slight snow the whole 24 h'rs	
22	32. 7	29.50	32	. .	. .	Slight snow P.M. and at night	1.
23	32. 7	29.47	34	. .	. .	Ditto, the whole 24 hours	
24	34	29.54	35	. .	. .	Much snow in the morning	
25	36	29.46	35	. .	. .	Slight rain and snow at night	.8
26	34	29.52	34	. .	. .	Slight snow and hail P.M.	.5
27	32. 3	29.66	30	. .	. .	Ditto all day . .	
28	36	29.47	34	in	in	Heavy fall of snow A.M., snow P.M.	
29	37. 7	29.36	36	16	16	Snow A.M., hail at night.	.1
30	36. 7	29.57	36	days	days	Fair all day	
31	36. 7	29.64	34	0.25 in.	1.21 in.	A little snow early in the morning.	
Max.	51°	30.20		Total	Total		
Min.	26°	28.90		0.63 in.	1.41 in.		
Mean	37°.3	29.697	35°.5				

REGISTER OF 420 BURIALS at the Parish Church, BOLTON,

In January, February, and March, 1837, *with the Average Amount of Burials during the same Months of the five previous years, and the ratio per cent. buried at the several Ages, to the total Deaths in the two periods.*

AGE.	1837.			Total burials for the 3 months.	Ratio per cent. at the several ages to the total Burials for the 3 months.	Average Burials during the same months in the five previous years.	Ratio per cent. at the several ages to the total Burials in the same months of the 5 former years.
	Jan.	Feb.	March.				
Under 1 year	21	50	21	92	21.9	76.6	26. 6
1	11	24	7	42	10.	39.8	13. 8
2	10	8	2	20	4.8	18.2	6. 3
3	1	8	2	11	2.6	8.6	3.
4	3	1	3	7	1.7	9.4	3.24
5 — 9	3	3	4	10	2.4	18.	6.27
10 — 14	5	8	4	17	4.	7.	2.43
15 — 19	4	4	1	9	2.1	6.8	2.36
20 — 24	2	5	6	13	3.	10.2	3.54
25 — 29	2	6	2	10	2.4	9.4	3.26
30 — 34	7	10	1	18	4.3	6.8	2.36
35 — 39	1	5	5	11	2.6	7.	2.43
40 — 44	6	7	3	16	4.	6.8	2.36
45 — 49	8	11	7	26	6.2	7.8	2. 7
50 — 54	7	9	3	19	4.5	6.	2.
55 — 59	1	9	3	13	3.	7.8	2. 7
60 — 64	2	11	6	19	4.5	11.4	4.
65 — 69	10	11	6	27	6.4	8.6	3.
70 — 74	2	8	9	19	4.5	11.4	4.
75 — 79	5	3	2	10	2.4	4.8	1.66
80 — 84	3	4	2	9	2.	4.	1. 4
85 — 89	—	—	—	—	—	2.4	.83
90 — 94	—	—	—	—	—	.6	. 2
95	1	—	—	1	.24	.2	.07
100	—	—	1	1	.24		
TOTAL.	115	205	100	420			
Total average for the five previous years.	111.2	79	97.8			288	

From the register of the weather it is seen, that during the first two weeks of January, the temperature was very irregular, varying in the mean of morning, noon, and night from 47°.3 to 27°.3, while the barometer was gradually falling from 30.27 to 29.17, and snow, hail, rain, and fair weather prevailed by turns. The epidemic, during this period, had scarcely made its appearance, and except it had subsequently done so, the few cases of suffocative catarrh and atonic bronchitis would have been attributed to an endemic and sporadic origin. With the 14th day of the month commenced a week of fair weather, and of a steadier and milder temperature; but after a very sudden rise, a declining state of the mercurial column took place, which reached its lowest depression of 28.88 on the evening of the 21st, while the dew point became nearer to the mean temperature. Contemporaneous with this lowest state of the atmospheric pressure, on the 21st commenced the full and rapid invasion of the epidemic, similar to some mighty mortific wave, that was sweeping over the country, sudden in its attack, but more lingering on its departure. As the disease advanced, the temperature fell for seven days, with continued rain, or snow till the end of the month. The barometer on the whole gradually rose, until it attained 30.10 on the morning of the 4th of February. The previous day the epidemic had reached its maximum intensity, having, in the course of a fortnight, laid the whole population, with trifling exceptions, under its influence, which extended from the merest *malaise*, or slight catarrh, to the most deadly effect on the functions and organs of life. After this culminating point, it gradually diminished in the number of cases, though not in the severity of many individual instances; and many diseases occurred, even until March, which could be fairly attributed to the constitutional taint or diathesis, which the epidemic had produced. The invasion of the epidemic was preceded by and attended with easterly and southerly winds, while the atmosphere was much loaded with moisture. This high point of saturation may be frequently observed during the prevalence of the epidemic, for the dew point is, for several days, seen to be as high, if not higher, than the mean temperature of the day. This anomaly in part arises from the dew point being taken only once a day, at noon, while the temperature was not only taken at that hour, but at morning and night. The average of the three would therefore be sometimes below the dew point at noon.

In comparing the *mortality* of the five previous years, during the same months with that during the prevalence of the epidemic, it appeared, that the increase on the whole three months was equal to 45 per cent. on the average mortality, and for the month of February alone, it was 160 per cent. Of the 420 deaths, 205 were males and 215 females, while the ordinary sexual proportion of deaths is as 109 males to 100 females. The half nearly, 208 of the 420, were under twenty years of age; while the half of the deaths, during the five previous years, were under three years and ten months. 21.9 per cent. of the whole deaths enumerated during the epidemic took place under the age of twelve months; while the average at that age, during the same months of the five previous years, was 26.6 per cent. The same proportions are observed during the second year of life. These ratios in favour of early life, during the epidemic, continue until the thirtieth year, when it changes to the prejudice of adult life. For instance, between the years of forty-five and forty-nine, the ratio of deaths to the whole was 6.2 per cent.; while at the corresponding ages, in the five previous years, it was only 2.7 per cent.; nearly about the same disparity obtains at the quinquennial periods of sixty-five and sixty-nine, and through all the advanced years of life, compared to the ordinary rate of the mortality at those periods of life, during former years.

In corroboration of the great increase of mortality during the epidemic, and of the greater extent, to which it bore upon those in advanced life, Dr. B. brought forward several notices and reports that have been published since the epidemic, and especially those by Drs. Clendinning, Heberden, and Graves; and regretted that reports of the kind had not been more general, and more exact in all contemporaneous conditions of the atmosphere and of the locality affected, so that some deductions might have been made, as to the laws under which the epidemic appeared and marched over the kingdom. By observing the date of its appearance, and its culminating point at many places, the nosometrical lines might be traced over the map of a country, and even over the inhabited part of the globe itself.

Thursday.—The Secretary read a "Report of a Provisional Committee of the Medical Section appointed to investigate the compositions of the various Animal Secretions, and the organs that secrete them; and on the analysis of solid animal secretions."

The paper stated that the Sub-Committee had not been able to complete their labours, and that the matter, particularly of the first, was preliminary. The analysis of glands and secretions was difficult, and had been little attended to. They had looked out for a standard of comparison, and had adopted the one which had been used to ascertain the chemical composition of solids and blood.

The method followed was to try what was soluble in certain mixtures, and what was insoluble;—1st, soluble in ether—2dly, in water—3dly, in water and alkali, and 4thly, insoluble. Certain principles were common to the blood: so were those principles common to the various glands, as blood, serum, albumen; but they were different constituents in various glands. Cholesterine was not peculiar to the liver; it was found in different parts of the body, blood, and secretions. They would submit to the meeting the processes to ascertain the secretions by the standards already mentioned.

Dr. Roget here interrupted the reading, and said, the remainder was replete with numerous manipulations and chemical processes, and since the whole would be published in the Transactions, he put it to the Section whether, as their time was so short, enough had not been read.—Dr. Williams said, the Report contained matter for fifty committees, and should certainly be made public to the profession.

Mr. Simpson commenced a paper on Cholera, and was proceeding to show the contagiousness of that disease, by human propagation from Edinburgh to the surrounding villages, when Dr. James Johnson submitted to the President and meeting, that the paper contained only what was known, and had been often discussed. After a few words from the President, Mr. Simpson said he would not occupy the time of the Section, but would print his paper for circulation.

Dr. G. C. Holland next read a paper "On the influence of the Respiratory Organs on the circulation of Blood in the Chest."—The author prefaced his paper by remarking that the present inquiry was only a small part of a more general one—one which indeed embraced the investigation of mental influence on the heart, stomach, alimentary canal, liver, kidneys, the secretory organs generally, and the muscular and nervous systems. He did not, he stated, mention these circumstances for the purpose of securing for the present inquiry the indulgent consideration of the Section, for, though it was only a part of a comprehensive whole, it was nevertheless sufficiently independent to be judged by its principles. There is, perhaps, no department of Physiology that has been more diligently cultivated than this, and none in which more ingenious experiments have been performed. In our own day the researches and experiments of Barry, Poiseuille, Magendie, Carson, Bourdon, Arnott, and Wedmeyer, are too well known to require any detailed account. There is little agreement in the theories of these distinguished physiologists respecting the influence of respiration on the circulatory system. Some regard it as exceedingly limited, and others contend that it is not only the principal, but the sole agent in the production of this effect. Dr. Holland said, he had long and sedulously investigated the influence of respiration on the motion of the blood, and the result of his inquiries and experiments on himself was, that it is not great in the ordinary and the unexcited conditions of the animal system, but peculiarly marked when the function of inspiration or expiration is unusually active or disturbed.

In the progress of this inquiry it appeared, that strong mental emotions, whether exciting or depressing, greatly disturb the circulatory system. If this fact be satisfactorily established, the argument founded on it will not be liable to objection, because it is based on exceedingly deranged conditions of the vital powers. Cases of this kind, like the experiments of Barry, illustrate the influence of respiration only in extreme circumstances, but it is under these circumstances that the direct agency of the brain on the heart is supposed to be peculiarly evident, and therefore it is perfectly legitimate to appeal to such cases in corroboration of a different theory. In ordinary breathing there is no evidence that the heart is influenced by the brain, such influence being supposed to occur only under peculiar circumstances; but those, whatever be their nature, may be shown to produce or co-exist with great disturbance of the respiration, of which immediate disorder of the circulatory system is a necessary effect.

The expansion of the chest occasioned by a deep inspiration, facilitates the flow of blood towards two different points—the right and left auricle,—between which the circulating fluid has no continuous connexion, nor is the impulse felt by one portion communicated in the slightest degree to the other. The contractions of the heart are modified according to the quality and quantity of blood which it receives. An increased quantity determined to it, without having undergone any additional chemical changes, invariably augments the frequency of the pulse, but diminishes its strength; a fact which Dr. Holland had repeatedly proved by experiments on himself. On making a series of deep inspirations, the contractions of the heart were accelerated, but proportionably enfeebled, and the same effect is always observed in cases of sudden and powerfully depressing mental emotions. When the increased quantity of blood is more stimulating than usual, the contractions are likewise accelerated, but, at the same time, greatly augmented in force. The capacity of the heart is, therefore, continually modified, emitting, at one time, an exceedingly small and feeble, at another a much more copious and invigorating stream. It is important to keep in mind that the weak and thread-like current is not attributable to any deficiency of blood either at the right or left auricle, the proportions in both being greatly increased by the causes which have disturbed the functions of the circulatory system. It was further remarked, in direct corroboration of this fact, that whenever congestion takes place within the chest, if unaccompanied by inflammation, the action of the heart is generally, if not always, enfeebled. In most such instances the pulse is found frequent and small, and even in the exceptions, if not frequent, it is weak. It was afterwards shown, that whenever this condition of the thoracic organs has continued for some time, syncope and palpitation of the heart often occur on the individual making a deep inspiration. Previously to this, the heart receives only a small quantity of blood—a quantity, however, strictly proportioned to its capacity, which is greatly diminished from that which it possesses in a state of health; and even this is occasionally propelled with difficulty, and is sometimes interrupted in its course, when a slight addition is made to it, by a forced or deep inspiration, or by the least bodily exertion. These phænomena, which are of no unusual occurrence, show that when the heart is only just capable of transmitting forward the small stream which it receives, it is extremely liable to be arrested or disordered in its action, not indeed from the direct influence of the brain, but from any cause producing determination of blood to the chest. With such data, the difficulties of this inquiry, the Doctor said, were greatly lessened. If, in one instance, the cessation of the action of the heart arises from the inward determination of blood, it is unphilosophical to suppose the same cause to operate in another, when it may be indisputably shown, that there exists the same condition of the circulatory system? The author, after these remarks, entered upon the investigation of the influence of respiration on the motion of blood within the chest; on the motion of blood in the arteries and veins; and, lastly, attempted to show how the qualities of the blood are modified by a preponderance of expirations produced by exhilarating mental emotions.

Dr. Carson differed from the writer. He thought that circulation was but little influenced by respiration—he meant as to force and quantity. There was another matter to be taken into consideration, which left the blood in a great measure in the same situation on inspiration and expiration, and that was the reception of air, by which means the expansion of the chest was accounted for without having any effect on the pressure or suction of the blood. The theory of the oxidizement of the blood in the lungs was considered to be exploded by recent physiologists, and that the air passed into the blood as it was; therefore that oxygenation did not arise from any change in the blood. When a weak person sighed, his circulation was improved. What was the cause? By a deep inspiration the lungs expanded with more force; the heart imbibed a larger quantity of blood, and the circulation was improved. He considered, with Dr. D. Barry, that by inspiration the blood was not in any degree aided in coming to the chest.—Dr. Holland replied, that he had made repeated experiments, and had invariably found that a series of deep inspirations did always bring to the lungs a larger quantity of blood than previously existed. The pulse, which before had only been 70 or 75, became 85, and in some cases 90, and was proportionably debilitated. Setting aside all theory, two effects followed—change in the rapidity of the pulse, and in its force. He brought forward a theory to account for these effects. But, letting his own theory alone, it was quite clear that inspiration must have an effect on the circulation. Dr. Carson had also stated that air passed directly into the blood. He had never heard this opinion before. All they were acquainted with was, that air was so inspired that a certain change was effected by it in the blood. By chemical investigation they found that the carbonic acid gas, which was exhaled, existed as carbon profusely in the blood, and united with the oxygen inspired; hence they had carbonic acid. Dr. Carson had stated still further, that sighing improved the circulation. He had paid considerable attention to this, and he could not say that it improved it except in one way, and that was, it occasionally gave freer play to the lungs. They saw persons after being interested in any story almost suspend their breath, or, in other words, forget to breathe; and as soon as the interest of the story terminated there was a very deep inspiration, which relieved the blood in the chest. But he was satisfied, that a series of inspirations did not invigorate the system. Dr. Carson had also stated that the blood was not facilitated in its return *by inspiration*. Experiments had frequently been performed which proved this. But he would refer to those of the son of Dr. Neil Arnot. Yet he was under the necessity of acknowledging that inspiration appeared to have the power of bringing the blood towards the chest about an inch.

Mr. Hare, of Leeds, read a paper on Spinal Deformities. The object was to introduce to the Section the model of an apparatus used in cases of curvature of the spine, &c., and its effects were shown in several casts and drawings of lateral and angular curvature, said to have been taken before and after the treatment. The apparatus consists of an inclined plane about six feet six inches in length, with three pullies at the upper, and two at the lower end, and others according to the nature of the curve; a head-strap, of stuffed leather, passes under the chin, similar to the Hinkley Collar; the shoulder-straps are passed to the axillæ; and a similar contrivance is used for the ankles, for extension, by means of graduated weights. In cases of projection of the sternum, the patient being what is called "chicken-breasted," a regular pressure is made on that bone.

Dr. Mackintosh read a communication, from a medical student, on a disease of the lungs caused by the deposition of particles of dust. It would contribute, he observed, towards the elucidation of that class of diseases affecting artisans, which had, in a more systematic form, been treated by Mr. Thackrah. In the neighbourhood of Edinburgh were many stone-quarries, and the workers in which not unfrequently died from consumption. A mason, a worker in the Craigleith-quarry, was ill; he was bled and treated for a common cold, recovered, and returned to his work. A short time afterwards he was again taken ill, and, two years after the first attack, he died. During his illness percussion afforded a dull sound; on the right side the stethoscope indicated no respiratory murmur; on the left a puerile râle. After death, the lungs presented a black appearance; 20 oz. of fluid were found in the right side, and 4 oz. in the left; there was no membrane, the pleura being fibrous, which was rare.—Dr. Alison stated that he had only seen this state once, being on the pleura and cardiac portion of this kind of membrane; both lungs were completely studded with black tubercles, as if they were melanotic, and cut like cartilage. Similar projections were on the pleura, and the bronchial glands were long and hard, grating when cut with the scalpel, owing to a cretaceous secretion like bone. The analysis of this cretaceous matter showed it to be principally the carbonate of lime. In the bronchial glands were carbonate of lime, silica, and alumina. He directed particular attention to this analysis, for Dr. William Gregory has published an account of the Craigleith-quarry stone, and the analysis of this stone gave the same ingredients as those found in the lungs of the workman. Dr. Gregory found in the stone carbonate of lime, silica, and alumina. The deduction must necessarily be, that this (pointing to a preparation of the lungs which he exhibited) must be an absolute deposition of the Craigleith-quarry stone, from small particles taken into the lungs during respiration, producing consumption and death.—Dr. Macartney had seen many black glands at the root of the lungs, and dispersed through its substance, but they were not hard. It was stated that fibrous concretions in the chest were rare; this did not accord with his observations. In his museum, at Trinity College, he had placed many examples of this disease. The inflammation gave, first, condensed lymph, changed it into fibrinous, converted it into cartilage, and finally into bone.—Dr. Mackintosh replied in the negative, to the question if any other part of the body contained stone.

Sir James Murray presented to the Section an apparatus for the purpose of withdrawing atmospheric pressure from the surface of the body, partially or wholly. He presented his reasons and observations to the Dublin Medical Section of the British Association, but they were not well understood, for want of apparatus and drawings. These he had now got, which, beside much labour and time, had cost upwards of 100*l.*; and he trusted, since he was becoming old, some of the Members would perfect them. The first machine was for the whole body, and resembled in form a slipper-bath, with the addition of a separate part to cover the upper portion of the body, the head only being free. The upper portion was luted to the lower, by means of a composition (used in making printers' rollers for inking the types,) and fixed in a groove; and, if necessary, the patient's face and head could be contained in a glass case, luted to the machine in the same manner, and respiration carried on by a tube. The air from the machine was removed by means of an exhausting syringe, screwed on towards the bottom part of this apparatus. He had tried this machine in the collapsed cases of cholera, and exhausted the air from the body, taking off one ton of atmospheric pressure. The consequence was, that the vessels became full and turgid, and the body, previously shrunk, was rounded and red. He had tried it repeatedly, and the same results followed. The process might be reversed, and pressure of air made on the body, even to the amount of 100 tons, without damage; but beyond this it would not be safe. He had tried it repeatedly in asthma. The principle was applicable topically, and parts of the body could be submitted to the action of the machine, modified so as to be suitable to them. He exhibited a contrivance, of a long tin tube, made air-tight, and with a piece of wet bladder round one end, which was open; at the other end, which was closed up, a small exhausting air-pump was placed. A patient, with a paralytic wrist, put his arm into this; the wet bladder was tied round his arm at the top, to make it air-tight, and the atmosphere was then pumped out of the tube. The atmospheric pressure being taken off, the limb became turgid, the circulation was increased, and the part affected was soon cured. There was another adaptation of the same contrivance to the limbs, to draw off the effect of congestion of the brain; and one to stop hæmorrhage in an injured hand, limb, or other extremity. An exhausting pump was fixed to the end of a bladder, the limb was put into the bladder, and the neck then tied round to make it air-tight. The air was then completely exhausted by means of the pump, which compressed the bladder so close to the skin as effectually to stop even the pores of the skin. The same contrivance of a bladder and exhausting-pump was also applied for the cure of ulcerated legs, by preventing evaporation of the ulcers, by exhausting the air, and making the collapsed bladder adhere tightly all round. For irregular surfaces he thought the instruments of particular value, since no dry-cupping could be used there. If this plan had been known when those melancholy deaths from dissection cuts took place in Dublin, and dry-cupping could not be had recourse to, it would have been fortunate. The machine would be particularly advantageous in withdrawing blood from particular parts to others more remote. Thus, in cases of congestion of blood in the head, where bleeding had been carried to such an extent that it would not be safe to carry it further, owing to the great general loss in the circulation, blood might be made to accumulate in other parts, as in the legs. The case of a well-known brewer in Dublin was treated on this principle, and recovered. Sir James then enumerated the kinds of cases where the apparatus might be used,—asthma, defective external circulation, aneurism, tumours, paralysis, &c.

Dr. Macartney considered the machines very ingenious; and, in reference to dissection wounds, he observed, that he used a solution of alum, keeping the parts moistened with it, and that he had never suffered any inconvenience from them.

Dr. Hugh Carlisle then related two cases of remarkable malformation of the Cerebellum; and made some observations on the structure of the Brain, and the mode of investigating its functions.

Mr. Carlisle exhibited to the Section a cast of the lower part of the brain and of the cerebellum, taken from a female idiot. In this instance, the whole brain was rather small, but not remarkably so, at its anterior part; and, upon dissection, it was found that the deficiency in internal structure was more marked than that arising from want of size or from imperfect form. The cerebellum was extremely small, not more than *one-sixth* of the usual size; the gyri were few and shallow; the arbor vitæ possessed but *two* principal branches, although the usual number is six large, and one small one. The corpus dentatum, or ganglion of the cerebellum, was not larger than a very small nut, nearly smooth in the outline of its section, of one uniform light-brown colour, and manifestly deficient in the true ganglionic structure. The pons varolii was very small, and its internal grey and white substances were not so distinct as usual. The pyramids were parallel cylindric forms, and did not decussate with each other at all, or at most very imperfectly. The corpora olivaria were little prominent, and the grey matter within was obscure. The locus niger was indistinct, and not sufficiently dark in colour. The corpora striata were very small, even when compared with the brain; their white fibres were few and minute. The pineal gland was rather large, and contained a cluster of soft round bodies, in place of the acervulus. The whole character of the brain was imperfect as to *structure; the plexuses* were not fine, nor so much interwoven as they ought to be; and the grey substance was pale, and not in sufficient quantity. This woman was manifestly idiotic, and possessed the peculiar expression by which idiots are characterized. The upper jaw projected beyond the lower, the hair grew upright from the scalp, a circumstance which generally distinguishes those who are idiots from birth, and the countenance was extremely forbidding. The second case was that of a man who had been deaf and dumb from birth, but was not deficient in intellect. This person died of fever in the Hardwicke Fever Hospital, in Dublin: on examination, it was found that the left hemisphere of the cerebellum was wholly wanting. His muscular system was well formed, and he had possessed full power over all the voluntary movements. Yet, in both these instances, though, as observed, the cerebellum was reduced in size and defective in structure, those organs, to which these portions of the brain are by phrenologists submitted, were remarkably well developed. Two other cases were referred to; and the question was proposed, how far such cases are consistent with Gall and Spurzheim's theory.

Mr. Carlisle further adverted to the particulars of several dissections of the brain in his possession, but which were too much in detail for perusal before the Section. The conclusion to be drawn from these dissections is, that in the brain of idiots the internal structure is always defective, and, in many instances, more so than the size or external form; and that in the brains of persons not idiotic, but possessing various degrees of intellectual power, very marked differences in internal structure may be observed by those who dissect the brain in the manner first proposed by Dr. Macartney, in a paper read by him before the British Association, and published in their Transactions for 1833. It is a most reasonable supposition, from the facts just mentioned, and from observation of the structure of the brain in animals, that the intellectual and moral character is much influenced by peculiarities in the organization of the various plexuses or ganglia, of which the brain essentially consists. Phrenologists have wholly neglected the internal structure of the brain, and have confined their attention to the size of certain portions at the surface; a method which is calculated to mislead,—amongst other reasons, because the surface of the brain is not the *only* part essential to the exercise of the intellectual and moral qualities, and size is a very inadequate measure of power, unless the structure of the part be also taken into consideration. As an example of an erroneous method of investigation, Mr. Carlisle quoted an elaborate paper, by the celebrated Tiedemann, in the

Philosophical Transactions, in which he concludes, from measurements of the size of the cranial cavity in Negroes and in Europeans, that the faculties of both are alike; whereas, it is well known to those who have opportunities of observing the children of Negroes and of Europeans educated together at the same school, that, as long as the perceptive faculties chiefly are employed, equal progress is made by both classes of children; but that as soon as the reflecting and comparing powers are required, as in the learning of mathematical or other inductive sciences, the inferiority of the Negro is almost uniformly made manifest. Mr. Carlisle concluded, by inviting the attention of physiologists to the examination of the minute structure of the brain, and stated his conviction, that by a comparison of its peculiarities with the differences of mental capacity observed during life, much light would be thrown on the functions of different parts of this organ.

Professor Evanson observed, that these facts were inadequate to overturn the doctrines of phrenology.—Dr. Bardsley contended against the use of extreme cases, as contrary to true medical philosophy.

Friday.—Dr. Yelloly, seeing there was so great a pressure of business before the Section, would at the commencement, fearing that there might not be time at the close, move that a vote of thanks be given to Dr. Rutter and the members of the Medical Institution for the great accommodation afforded and the attention paid to them. Prof. Evanson seconded the motion, which was carried unanimously.

Dr. Warren, of Boston, U. S., then offered remarks "On some Crania found in the Ancient Mounds in North America."—Whatever related, he observed, to the lost nations of North America is interesting. The fate of a people which occupied the richest part of that country, for an extent of more than a thousand miles, is involved in the deepest obscurity. Nothing remains of their history, and we can gather no ideas of what they were and what they did but from the constructions existing in the territory they inhabited. These works are numerous, and scattered over the country, from the lakes of Canada to the Gulf of Mexico. They consist of regular lines, having considerable elevations and great extent, of mounds or pyramidal eminences, and of spacious platforms of earth. These different works were adapted for fortifications, for places of worship, and for cemetries. Within the last two years, reports, he said, had reached the Atlantic States of very extensive remains of structures indicating the existence of one or more considerable cities in the territory of Ouisconsin, formerly a north-west territory of the United States. The antiquity of some of the numerous works alluded to was great; there are circumstances which led him to refer them to a period eight hundred or a thousand years back. The circular and pyramidal eminences seem to have been destined for two purposes: for places of worship and for cemetries. Some of them contain immense heaps of bones, thrown together promiscuously, as after a bloody battle; in others the bodies are regularly arranged, and in some there are only one or two bodies; the bones in the last are usually accompanied by silver and copper ornaments, some of which are extremely well wrought. The crania found in these mounds differ from those of the existing Indians, from the Caucasian or European, and in fact from all existing nations so far as they are known. The forehead is broader and more elevated than in the North American Indian, less broad and elevated than in the European; the orbits are small and regular. The jaws sensibly prominent, less so indeed than in the Indian, more so than in the European. The palatine arch is of a rounded form, and its fossa less extensive than in the Indian or African, more than in the European, owing principally to a greater breadth of the palatine plate of the os palati. But the most remarkable appearance in these heads is an irregular flatness on the occipital region, evidently produced by artificial means. These peculiarities, with others more minute, give a character to these skulls not found in any living nations. Dr. Warren also stated that he had received other crania, which at first view he believed to be of the same race and nation, for they resembled them in all their peculiarities, more nearly than one Caucasian head resembles another; and he cially disease of the brain, to what degree any of his mental or moral powers be affected beyond the information to be obtained from his giving rational answers or not, to few common-place questions. Dr. Evanson here dwelt on the importance of morbid anatomy; no one could value pathological inquiries more than he did, nor recommend their prosecution more strenuously, even as regarded the inquiry now proposed—but pathology, like every thing else, had its proper time and place. Some light had, however, been thrown on these subjects by pathological investigation; and the continued prosecution of the inquiry, with due precaution, would doubtless add still farther to our knowledge. On reviewing, however, what had been as yet actually done by pathology in the way of connecting derangement of function with disorder of particular parts of the brain, but two points seem to have been with any certainty established; and these were the relation between loss of power of utterance and an alteration of the anterior lobules of the hemispheres, and between derangements of the generative system and alteration of one of the lobes of the cerebellum. Dr. Evanson said, he read these statements from an epitome by a French author of note, that they might not appear as statements coming merely from himself. Other relations were said to exist between affections of the extremities, upper or lower, and some of the deeper-seated parts of the brain; but these had nothing to do with the higher functions attributed to the brain, and which he was more particularly considering; while even these relations between the parts alluded to were contradictory of the results obtained by those who experimented on the same parts in living animals. As yet, then, it did not appear that much light had been thrown on the subject by pathological inquiries. The two conclusions pointed out, however, were in accordance with the result of observation made by an altogether different method, and, as far as they went, corroborated the existence and situation of the organs of language and amativeness. New facts would doubtless be thus made out, but as being in itself an adequate method for discovering the functions of the brain, Dr. Evanson altogether doubted the efficiency of mere morbid anatomy.

Another set of inquiries now entered the field, who, seeing the disadvantages of attempting to investigate the functions of the brain, by examining that organ in an unnatural or unhealthy condition, proposed to investigate it only in its healthy and natural state; and, by considering its development, to determine its functions. Perhaps this may be denominated the physiological method; or that, which, by comparisons regarding the size of the organ in man and other animals, sought thus to determine in what man's intellectual superiority consisted. "Man has absolutely the largest brain of any animal in creation, and hence man's intellect is superior." This was a plausible dogma, and had the support of some great names, and much apparent truth; but, unfortunately for those supporting this opinion, it did not prove to be absolutely true, and so, necessarily fell to the ground. Man, in fact, has not the largest brain of all animals —the brain of the elephant and whale being larger;—hence man's superiority to these animals consisted not in the superior size of his brain:—well, said others, we see this, and give up that test; but, though man's brain be not absolutely the largest, it is surely the largest in proportion to his body—and this is the reason of his superior intelligence. But this test was less fortunate than the former; for the wren, the sparrow, the canary, and many monkeys, have been found to possess brains larger, in proportion to the size of their bodies, than man; but it has not been proved, though each may be clever enough in his way, that any of them surpass man in intelligence. This mode of comparison not answering, the brain was next compared in size to the spinal marrow, and man was said to surpass in intellect, because in him the brain exceeded the spinal marrow more than in any other animal. Sömmering, in particular, supported this opinion, but it is not tenable as matter of fact; there are exceptions, and Cuvier points out the dolphin as one.

The next mode of comparison adopted, was that of comparing the brain with the size of the bones of the face. The larger the brain was in comparison to the face, the greater would be the intellectual power; and hence the superiority of man over all other animals, and even of one man over another; because the size of the brain compared with that of the face was the largest. This sounds silly enough; and yet this is, in truth, neither more nor less than an enunciation of Camper's celebrated "Facial Angle"—one of the most popular, and apparently successful, tests of this kind that has been proposed; and which still continues in favour with many physiologists. This angle (as all know) was formed by a line drawn horizontally from the roots of the incisor teeth of the upper jaw, to the opening of the ear, which, being intersected by a line drawn perpendicularly from the same incisor teeth to the most elevated part of the forehead, constituted an angle, the capacity of which was to be taken as the measure of intellect. Now, it happened that, in this mode of comparison, there accidentally existed an element of truth, which accounts for its apparent success in many cases. The perpendicular line, in fact, gave a rude measure of the degree of projection of the forehead, or development of the anterior lobes of the brain, which are agreed upon by all observers, as more particularly connected with the intellectual powers. The more the forehead projected, the larger the angle would become—hence the apparent truth of the test;—but, on a closer view of the subject, it will not bear examination. The facial angle of the infant is greater than that of the man, (as 90° to 86°, according to Cuvier)—hence the infant should have superior intelligence. The facial angle of the dullest European must be greater than that of the most intelligent negro, in consequence of the greater projection of the bones of the upper jaws in the latter; so that, in truth, the power of intellect must vary, (according to the test,) in proportion as the bones of the upper jaw are prominent. Besides, the facial angle, in nearly three-fourths of the lower animals, is, according to Blumenbach, the same; yet how different are these animals in their various degrees of intelligence? But it is unnecessary to dwell upon the incompetency of methods of investigation, which took the whole brain for a single organ, and made that the organ of intellect as a single mental power, and then attempted to establish the relation between the two, by comparing the brain with something between which and the brain no necessary relation existed. Say that the brain is this organ of intellect, how can the latter be increased or diminished, by any increase or diminution in the size of the whole body, or any part, (spinal-marrow, nerves, or even jaw-bones,) the brain remaining the same? Yet this is the proposition so gravely put forth. Were such methods even correct, they would be useless: for, with the exception of Camper's facial angle, none are applicable during life; and were they applicable, what information could we get, but some vague notion about the degree of intellect possessed, without the slightest attempt at information respecting any one intellectual power? Yet how numerous are these powers, and how various, not merely between the different classes of animals, but between one man and another!

A new observer now appeared in the field—a man rarely endowed with the power of observing facts and thinking for himself—a close interrogator of nature, and a strict adherent to the inductive method of investigation. Dr. Evanson said, that he need hardly add, that he alluded to the celebrated Dr. Gall. He pursued his investigations according to a method as different as it appeared to be superior, to that of his predecessors. In attempting to investigate the functions of the brain, and determine the uses of its several parts, he neither confined his inquiries respecting this viscus to a state of injury or disease; nor did he look upon it as a single organ exercising a single function; but, regarding it in its natural condition as a congeries of organs, or collection of parts, he endeavoured to determine the use or function of each, by comparing the development of one part with that of another, in the same brain, taking size as a measure of power. This was the peculiarity of Gall's method; and it was applicable, in man, to much the greater part of the cerebral surface, the exterior of the skull being a sufficiently correct indication of its interior shape, or of the cerebral development within. The result of these observations was, to lead him to the conclusion, that the intellectual organs, or the parts of the brain by which our intellectual powers are manifested, have their seat in the anterior lobes of the brain: the organs of the moral powers are situated in the superior parts; while the lower propensities or passions, which we share in common with the inferior animals, have their seat below and behind. Each region again was subdivided into distinct parts, constituting separate organs for the various mental and moral powers.

Prof. Evanson then summed up the general arguments, and concluded, by observing, that he was far from urging any one to give credence to the science;—on the contrary, he made an earnest appeal, particularly to the junior part of his auditors, to examine and think for themselves. It had been his object to show them that the line of investigation pursued by Dr. Gall, in endeavouring to discover the functions of the brain, was free from many objections that held against other methods; and, being in itself good, could not but lead to good results. This was a physiological, not a phrenological question—as such, he had brought it before the Section.

Dr. Simms differed from Professor Evanson. Pathology should be considered along with Phrenology, and did support it to a greater extent than mentioned by Dr. Evanson.—Dr. Mackintosh thought one proof of the truth of Phrenology had escaped Dr. Evanson; he alluded to insanity.—A member objected to the method pursued by phrenologists of examining the cranium; the brain should be the part selected, and he exhibited to the Section a dried brain, which had been preserved five years, as facilitating this method. To preserve the brain, the blood is carefully washed away, the brain is then immersed in highly rectified spirit of wine for five months, then gradually dried in cloths. The brain, though shrunk, retains its natural shape and form.—Dr. Macartney would mention a better plan of preserving the brain, since there would be less reduction of bulk. Inject it with a solution of alum, immerse, and use pyroligneous acid. He was formerly a pupil of Dr. Spurzheim, and was a believer in the doctrines of Phrenology. Since then he had altered his opinion, and was now opposed to it; for he was sure, that the superficies of the brain only was considered by Phrenology, and the most important part, the intimate structure, was neglected.

Dr. Mackintosh then addressed the Section on Cholera. He would state only facts, and show them, supported by a great number of preparations of parts taken from cholera patients, soon after their death, mostly in the second stage.—collapse. He then spoke in favour of pursuing Pathology, with a view of elucidating disease; but Pathology, in combination with causes, symptoms, and treatment. He who did not pursue this method, was not a pathologist, but a mere morbid anatomist. He had dissected three hundred cases of cholera, in the first year of its appearance in a malignant form; two hundred and eighty of these died in the collapsed stage. It was a popular error to say, as many frequently do, that medical men know nothing of cholera. In every respect their knowledge on this subject is vast, and minute, and scientific, and practical. Their knowledge exceeds that on scarlatina, or measles, with which popular opinion thinks them well acquainted. In India, the opinion is, that in cholera there is lost balance of the circulation: it was not so; there is no rigour, and never was a rigour, which there would have been, if the Indian opinion was true. There was a giving off of serum, and every vessel, arteries as well as veins of the body, every tissue was literally injected with black blood, which freely followed the knife on dissecting.—Dr. Mackintosh now presented a great number of preparations, and paintings and drawings, of the organs of the body afflicted with cholera. Many preparations were dried with the cholera blood in them, which was effected by submitting them, immediately on their removal from the body, to a stream of dry hot air, from apparatus constructed for that purpose. These accumulations were greater in some organs than others, often depending on the state of the patient's health previous to the attack—if he had bronchitis, there would be the greatest accumulation. The blood-vessels were greatly distended: in a cast of a case taken from the abdomen, which he exhibited, the abdominal aorta was one inch in diameter, vena cava three-fifths, emulgent vein eight-sixteenths. The general anatomical characters, as shown by preparations of each organ, were accumulations of blood, ecchymosis, called by the French, apoplexy; thus, if occurring in the lungs—pulmonary apoplexy, petechiæ, and clots. In addition, we may mention some peculiarities in individual organs, as noticed by the lecturer. In the head, even the bones were vascular, and could not be bleached, but with great difficulty: arachtnitis rare, pia mater loaded with blood and effusion, which caused many to mistake it for arachtnitis; in the sinuses clots of blood and lymph, rendering in these cases recovery impossible. In the spinal marrow were, in sixty out of two hundred, deposites of bone on the theca; in the chest, pleura at first dry, as if exposed to dry air; in collapse it became unctuous; lungs very heavy, weighing 3 lb. 9 oz., to 3 lb. 11 oz.; pulmonary apoplexy frequent in consecutive fever, which fully explains the number of deaths from that fever after the cholera attack. In the abdomen, the mucous membrane ulcered and softened, not always red, sometimes even white; the liver resembled that of dram-drinkers, the gall-bladder unusually distended with black bile; then many galls in numerous cases, in only one was the duct rendered impervious by them; the kidneys were diseased, as recorded by Bright, and from the papillæ could be pressed mucus; bladder contracted. As to the blood-vessels, he wished to direct the particular attention of the Section to them; he would show, by many preparations, the diseased state of their inner coat, the organization of which was completely altered, so as to render them unfit for their functions, and this disease extended throughout the whole series of vessels, until it terminated in a kind of gelatinous pulp. Would this state of the vessels have considerable influence? and how far would it be concerned in producing that state of blood, always observed in cholera—when the serum passes off, the blood becoming thick and black? Many of the French, and some English, thought the nerves in cholera, on its appearance, were comparatively not so vascular, and not much diseased otherwise; the par vagum, as it passes the subclavian artery, was enlarged like a ganglion. Even animals were seized with cholera, and presented the same morbid appearance as in the human subject.

Dr. Clanny could fully confirm all the observations of Dr. Mackintosh. Dr. Holland inquired, what name he would give to the affection of the bowels ushering in the cholera, and what was the nature of cholera? Dr. Mackintosh, replied, watery diarrhœa; and he would have entered into the nature of the disease, if time could have been afforded him.

Dr. Carson then read a paper, "On the motion of the Blood in the Head, and on the uses of the Ventricles and Convolutions of the Brain."

The subject was treated in reference to three principal points:—1st. The circulation of the blood through the head. 2d. To the evolution and regulation of the heat of the head. On the first point little was added to what had been already published by the author. On the second head, also, brain only contains an extension of that power of generating heat and reducing heat possessed by every part of the body. The 3d point was that in which the originality of the communication chiefly consisted. It explained the contrivances which nature had used to retain all parts of the brain itself, and of its connexions within the head, in their natural position, both with respect to the parts of one hemisphere of the brain, and also in relation to each other, and to the cranium. As it was contended to be fully proved, that the substance of the brain is liable to decrease and enlargement, like any muscular or soft part of the body, in cases of great emaciation or obesity, and as the brain must always occupy the same space,—that is, it must always fill the cranium, it was necessary in these changes of dimensions to have contrivances for allowing the brain to occupy this space without laceration, undue constriction of the substances and appendages of the brain, or of changing the apposition of the different parts of the brain to their appropriate parts of the skull. These contrivances consisted of two kinds; the ventricles placed in the interior of the brain, and the convolutions on its exterior superficies. The internal ventricles, or chambers, were receptacles irregularly formed, all connected with each other, and with the spinal axis. By these receptacles containing more or less of water, according to the amount of actual brain, the existing quantity of brain was allowed to assume the condition that was fitted to retain its relations. In this office the ventricles were greatly aided by the convolutions of the brain. In consequence of this, parts of the brain of a person in full health and of the same in a state of emaciation, would be opposed to different parts of the skull. Protuberances of the brain, in one case, received into depressions on the skull, would, in the other, be opposed to protuberances of the skull, and the nerves and blood-vessels would, in the different cases, have a changed direction, and one altogether incompatible with their functions. To prevent these effects, nature has nicked the external surface of the brain. The convolutions formed by this nicking, in cases of emaciation, have wider intestines between them, and become themselves narrower as the furrows are enlarged, while the ridges are smaller. These enlargements of the furrows co-operate with the ventricles, in cases of great emaciation, in securing to the changed amount of brain its natural position. The different size of the furrows is formed or filled by an increased vascularity and cellularity in the vessels of the pia mater and arachnoid coat. Protuberances of the brain are received into depressions of the skull; and the nerves and blood-vessels find their road to their place of exit out of the skull unchanged. This appears to be one of the important and indispensable uses of the ventricles and convolutions of the brain.

Dr. Evanson said, in closing the Section, that no meeting could have been more harmonious; and the great advantage of these kinds of associations had been experienced, in examining and testing any opinions, and in making more generally known what was useful.

PATHOLOGY AND THERAPEUTICS.

LARYNGEAL PHTHISIS.—CONSUMPTION OF THE THROAT. CLERGYMAN'S SORE THROAT.

Rigidly defined, laryngeal phthisis should be a chronic affection of the larynx, which is capable by itself of causing consumption. This is applicable, under the admission that every organic alteration, which may give rise to hectic fever and marasmus, is, properly speaking, a *phthisis*. Nor do we see reason to disbelieve this opinion, and to adopt the notion of many modern writers who would restrict the term to an affection characterised by tubercles of the lungs. It is true that death from phthisis laryngea is rarely the termination of those series of symptoms which mark ordinary consumption. The patient more commonly perishes from suffocation. But as there are undoubtedly cases in which the larynx is the part primarily and persistently and solely changed organically, we may adopt the following definition of two late French writers * on the disease. *By phthisis laryngea is to be understood every chronic alteration of the larynx which may induce consumption or death in any manner.*

But, this much premised, it ought to be distinctly understood, that by far the larger number of cases of chronic inflammation and ulcerations of the larynx are associated with tubercular affections of the lungs,—sometimes preceding, and more frequently coming on after this latter. The laryngeal then complicates and adds to the danger of the pulmonic disease, and, on occasions, is itself the cause of death. Nor need this complication excite surprise, since we find in many instances that with tubercles of the lungs are associated tubercles, or an analogous organic change, in the intestines, giving rise to diarrhœa and other distressing symptoms, and proving the immediate cause of exhaustion and death.

Chronic inflammation of the mucous membrane of the larynx is often diffused over that of the velum palati, tonsils, and pharynx. Perhaps it would be more correct language to say, that the former, as well as the symptoms of laryngeal phthisis, at times result from inflammation of the mucous membrane of the tonsils, velum palati, and enlargement or relaxation of the uvula. Even caries of one or more of the teeth, by giving rise to a determination to the throat, occasionally induces chronic laryngitis. A celebrated opera singer, Mme. Mainville Fodor, is said to have lost her voice in this way.

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* MM. Trousseau and H. Belloc.

It would be superfluous labour for us to enumerate all the organic lesions of the several parts of the larynx, in the disease now under consideration. In the pages of Andral,* Louis,† Bayle,‡ Stokes,§ also of Cruveilheir,‖ &c., &c., will be found very ample details on this point. Still more recent, and less accessible, are the observations of the two writers already referred to—MM. Trousseau and Belloc. It is sufficient to say, that both the mucous membrane and the cartilages of the larynx are subject to grave disorganizations of structure. The alterations in the first are redness, swelling, erosion, and ulceration. If we depress the tongue of the patient, and examine the velum palati, tonsils, and pharynx, and if, as sometimes occurs, we can obtain a view of the epiglottis, we may satisfy ourselves of the existence of a vivid redness of the parts, although after death they may appear of a bloodless paleness. The mucous chorion alone is involved in erosions, which are well exhibited by placing the affected portion under water. We are cautioned not to confound this state of parts with ulceration. It is alleged by the authors last named, that they have never met with erosions of the mucous lining of the larynx and trachea, except in cases where the lungs were affected. Ulcers may affect the whole larynx, vocal chords, aryteno, epiglottidean ligaments, the mucous membrane covering the epiglottis, and even the cartilages. Their number is represented to be generally in the inverse ratio of their size. In general, ulceration begins in the mucous membrane. The alterations in the voice have been found to correspond with the lesions of the vocal chords. A change in the state of the arytenoid muscle also modified the voice.

The upper part of the respiratory apparatus would seem to be the chief sufferer from ulceration in phthisis. Of one hundred and two consumptive patients noted by Louis, the trachea was found ulcerated in thirty-one, the larynx in twenty-two, and the epiglottis in eighteen. In the whole of his researches up to that time, he only met with seven cases of ulceration of the bronchia. Hastings, it is true, gives a larger proportion. In the leather-dressers of Worcester, who died of chronic bronchitis, the mucous membrane, according to the observation of this author, is always ulcerated. Andral tells us, that of the whole number of cases of phthîsis which have come under his observation, three-fourths had ulcerations of the larynx.

The *causes* of laryngeal phthisis enumerated by Trousseau and Belloc, are acute laryngitis become chronic, loud cries, habitual efforts of the voice, excessive venereal indulgence, periodical exanthemata, various tumours in, or pressing upon, the larynx, syphilis, but *chiefly tubercular pulmonary phthisis.* The tubercular and scrofulous diathesis predispose to it. Besides these, age and sex exert a great influence over the development of the disease. Almost all the patients whose cases were observed by the authors above named, or have been reported by writers, were between twenty and fifty years of age; the most of them were between thirty and forty-five. From the observations of Serres and Louis, it appears that among individuals of the tubercular diathesis at least, the organic alterations in the larynx and trachea are twice as numerous among men as among women. Women are less subject to alterations of the organs of voice than men; and children, whose constitution is very analogous to that of women, participate in this anomaly.*

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* *Clinique Medicale.* † *Recherches sur la Phthisie.* ‡ *Recherches*, &c.

§ A Treatise on the Diagnosis and Treatment of Diseases of the Chest, &c.

‖ *Medicine eclairée par l'Anat. pathol.*

To the above causes we may add great extremes and sudden mutations in the atmospherical air. Of the former, dry heat and great cold; and of the latter, transitions from a hot to a cold air, and inversely, are the most common. Hoarseness will be brought on in a person predisposed to the disease, if he be exposed to a temperature which differs much from that in which he habitually lives. It is a fact also worthy of commemoration, that the hoarseness is greater when the patient passes from a cold to a hot air, than it is when the transition is from a medium to a cold temperature. Whatever tends to attract fluids in excess to the larynx, and to derange the circulation on its mucous membrane, as well as to indirectly weaken the muscles of the voice by enfeebling innervation, must of course be received as a cause of the disease in question. The use of tobacco may bring on all these inequalities and derangements of function, and if not alone adequate to the production of chronic laryngitis and laryngeal phthisis, cannot but be regarded as a powerfully contributing cause in a frame already predisposed to the disease, and in which other excesses and irregularities, such as the undue exercise of the voice, are working out their bad effects. The diminution of nervous power, and of consequent contractility of the muscles, and relaxation of the vocal chords and of the fibro-elastic expansion of the internal surface of the larynx, induced by the habitual use of tobacco, either by chewing or smoking, require of the individual greater exertion of these parts, in order to raise his voice to a given pitch than would, under other circumstances, have been necessary. This strain often repeated, that is, whenever loud speech, as in public speaking of any kind, is demanded, the vocal organs are of course rendered still more prone to suffer from subsequent irritation and incurable disorganization. The effects of snuff taking are of a more mixed nature,—since, complicated with the peculiar sedative and narcotic operation of tobacco is the continued irritation of the nares and fauces, kept up by the powder either applied to or reaching these parts.

Laryngeal phthisis has been divided into five species: simple, syphilitic, cancerous, tubercular, and impetiginous, or herpetic. The first is produced by common inflammation. The names of the next three indicate their origin. Respecting the fifth, a useful lesson is conveyed in the following case:—

A young lady, aged twenty-one, was seized with *eczema* of the scalp. The affection soon quitted the head and attacked the face, spreading thence to the alæ and fossæ of the nose. The face was cured, the nasal fossæ became better, but severe sore throat supervened. This being got over, obstinate cough and aphonia succeeded. These by proper treatment disappeared; but the disease returned to the fossæ and alæ of the nose. These parts were again cured, and fifteen days afterwards the larynx was affected anew. Constitutional was now substituted for local treatment, and the patient recovered. She is still, however, subject to hoarseness from a slight cause.

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* Edinburgh Medical and Surgical Journal, Oct. 1837, containing an analysis of the work of Trousseau and Belloc, which serves us for guide on the present occasion.

Symptoms.—These in laryngeal phthisis are local and general. The local are derived from the tone of the voice, cough, expectoration, pain, appearances, feel, state of the respiration, mode of deglutition. The general symptoms are scarcely observable, except where the disease is in the acute stage, or at the last of the chronic.

Alteration in the tone of the voice is one of the earliest symptoms which strike the attendant. At first it is sometimes mere weakness, but more frequently distinct hoarseness. This last is sometimes continued, and at other times comes on only when the larynx is fatigued, or the patient is exposed to a temperature which differs much from that in which he usually lives. If the individual suffer from severe hunger the hoarseness is much increased, but disappears after a meal. Immediately before menstruation, as well as after venereal indulgence, the hoarseness becomes greater.

Dividing the duration of the disease into three periods, it will be found that during the first the hoarseness is intermittent, during the second it becomes continued, and so may remain to the end, though more frequently complete aphonia supervenes during the second stage.

Aphonia may be intermittent or continued. In the former case the voice is lost at night, while in the morning, or after a meal, it is merely hoarse. Continued aphonia is a bad symptom.

Inequality of voice is a symptom which more frequently occurs in laryngeal phthisis than the patients themselves suspect. When the larynx is diseased the volume of the sound emitted is lessened, and in general the emission of air is proportioned to the intensity of the voice. Hence discordant and unequal intonation is avoided. But the voice becomes discordant and squeaking in those who attempt to give it the full development which it possessed before. This has been observed in several singers and pleaders.

Cough.—The cough, in general, is more frequent in diseases of the larynx than in those of the chest. The sound in the former always resembles that of the voice. In those affected with *aphonia*, or stridulous hoarseness, the cough is very peculiar. It has been called by Trousseau and Belloc, eructating; because it resembles suppressed eructation. The frequency of the cough is not a measure of the state of the larynx. Some persons in whom there has been found great lesion of this part, have hardly coughed at all. Whilst others have been teazed with an incessant cough, in whom both the lungs and the larynx are sound.

Expectoration.—In simple laryngeal phthisis, the expectoration is mucous, transparent, possessed of little viscidity, and more or less abundant: its viscidity being in the inverse ratio to its abundance. When ulceration is present, small puriform masses, frequently streaked with blood, or altogether bloody, are brought up with effort.

Pain.—In most of the cases of ordinary laryngeal phthisis, there is no pain felt during any period of the disease, even when the mucous membrane and cartilages are destroyed by ulceration or necrosis. The pain, however, is, in almost all, very acute in the act of swallowing; and the patients take care to mention that they only suffer during deglutition, and not in breathing or speaking, and refer to the pharynx as the seat of the disease. Inspection of the pharynx shows that there is no irritation or obstruction here, but on *post mortem* examination the larynx will be found to be considerably changed. The explanation is, that the inflamed tissues of the larynx, which is anterior to, and in a measure completes the pharynx, are pressed upon by the alimentary mass in swallowing, and causes the pain complained of.

In the cases in which the epiglottis is the part inflamed and ulcerated, there is much dysphagra, and a return through the nostrils of the drinks taken by the mouth, and a fixed pain in the superior portion of, or immediately above, the thyroid cartilage.

Little assistance is derived from inspection, in ascertaining the seat and nature of the diseases of the larynx. We are, however, not the less required to examine the fauces, and to note particularly the state of the uvula, since, as already remarked, its elongation may produce severe inflammation of the larynx. Merited stress has been laid upon an examination of the epiglottis, since the larynx is seldom severely affected without this part participating in the disease. Sometimes by getting the patients to utter loud cries during the inspection, the epiglottis, carried forward at each expiration, may become visible. As yet little benefit has been derived from the use of speculums invented with a view to our seeing by their means the larynx. And we must regard as hazardous the suggestion, and actual trials a few years ago, to ascertain, by the introduction of the finger, the state of the epiglottis and upper part of the larynx.

Crepitation on touching the larynx has been by some regarded as a pathognomonic sign of *phthisis laryngea.* But renewed experiments showed that this occurs when the organ is perfectly sound.

Of the signs furnished by respiration that of anhelation is the most marked, after the second stage of the disease is reached, and goes on increasing until death takes place. This anhelation may arise from two causes, muscular debility, the result of general weakness, or narrowing of the orifice of the larynx. In the latter case it takes the following course. At first the patient feels himself liable to what he calls fits of asthma, which most frequently come on at night. At a later period, the severity of the paroxysms is increased, and the oppression is permanent. The patient cannot breathe in his bed, unless supported with pillows, and then the inspiration is habitually sibilant, and the expiration loud and prolonged. Paroxysms of true orthopnœa soon supervene, during which there is extreme anxiety and threatened suffocation, and generally in fifteen or twenty days from this time the patient dies suffocated.

Different Symptoms in the different species of Phthisis Laryngea.—We have not room to give these in detail. The progress of syphilitic is not the same as that of simple laryngeal phthisis. The latter generally originates in the larynx and trachea, whereas the former usually spreads from the pharynx and nasal fossæ. It is, we are told, of great practical importance to attend to this, because experience shows that the larynx is usually affected in the same manner with the throat. Thus when an erythematous syphilitic affection is observed in the throat, the affection of the larynx will not be of an ulcerous nature, and on the contrary, when the tonsils, and velum palati, and nasal fossæ are deeply ulcerated, we may expect to find the larynx ulcerated or eroded.

Tubercular laryngeal phthisis is the complication of laryngeal with tubercular pulmonary phthisis. Hence, in addition to the symptoms of simple laryngeal phthisis, we shall find those of pulmonary consumption. In forming, therefore, our diagnosis and prognosis of diseases of the larynx, the examination of the state of the lungs should never be omitted. We may go farther, and lay it down as a rule for the guidance of the medical attendant, that in a vast majority of the cases of chronic laryngitis, not syphilitic, there is associated with it pulmonary tubercles, and after a time pulmonary consumption. On this point the advice of Dr. Stokes should be regularly and fully acted on:—

> "The first step in the investigation will be to accurately examine into the history of the case, and, in particular, to determine whether the laryngeal affection was primary or supervened on an already existing state of the lung. We must examine what were the first symptoms, and whether they were referrible to the larynx or lung. We must inquire into the past and present state of the fauces, and also whether a syphilitic taint exists. Now, should it be found that the first symptoms were those of a laryngeal character, that the voice had been altered from the outset of the disease, or that a syphilitic taint did really exist, we have a good probability, not that the lungs at the time of examination are free, but that the first morbid action was exercised on the larynx. But if, on the other hand, we find that, previous to the occurrence of any hoarseness, or strida, or dysphagra, there has been cough without the laryngeal character, particularly if it was at first dry, and afterwards followed by expectoration; if hectic has existed, although the expectoration continued mucous; if there have been hæmoptysis, pain in the chest or shoulders; and, lastly, if the patient has emaciated previously to the setting in of the laryngeal symptoms, we may be almost certain that tubercle exists, and that the case so commonly called laryngeal, is in reality pulmonary phthisis. And if it appears that the patient is of a strumous habit, or has already lost brothers or sisters by tubercle, we may form our diagnosis with a melancholy certainty, even though, at the time, we can detect no certain physical sign of pulmonary tubercle."

It follows from these premises, that we must have recourse, in our diagnosis, to the stethoscope, the nature and abundance of the expectoration, and the rapidity of the consumption. But, as Dr. Stokes has stated, in the work just quoted from, the sounds which would be conveyed to the ear through the stethoscope, and constitute the phenomena of respiration, are greatly obscured or masked by the state of the larynx when this part is the seat of inflammation and disease. Fortunately, percussion serves us here instead of auscultation, and enables us to determine which lung, and of the diseased one which part, is affected. "Under any circumstances," says Dr. Stokes, "the localised dulness points out that there is something more than laryngeal disease, and we know from experience, that that something more is, in the great majority of cases, the tuberculisation of the lung."

Between laryngeal and tracheal phthisis it is impossible to distinguish—as they are almost always united. The same remark applies to the disease in question, and œdematous laryngeal angina. When acute, this last can be confounded with croup alone, and when chronic, which is most frequently the case, it is a termination of laryngeal phthisis, and, therefore, symptomatic of it. Among the terminations of laryngeal phthisis one of the most severe is swelling of the margins of the glottis. The primitive laryngeal angina, of which this is an accompaniment and a symptom, does not come within the scope of our present remarks. The consecutive is occasioned by organic lesion of the larynx and its connexions, and may be either inflammatory or active, or non-inflammatory and passive.

Laryngeal phthisis may terminate favourably, and, of course, the less progress the disease has made the greater the chance of cure. When the disease has advanced considerably, and the system is weakened by dyspnœa, cough, prolonged abstinence or marasmus, there is little hope of saving the patient. But as there are on record, accounts of several patients in whom the disease had made great progress, and who were nevertheless cured, it shows the propriety, and indeed duty, of persevering, so long as there is the slightest shadow of hope, in our endeavours to save the patient.

TREATMENT.—In the treatment of laryngeal phthisis, as in that of every other disease, it becomes the duty, both of the patient and physician, to withhold all the exciting and sustaining causes of the disease whilst the remedies for its removal are employed. In the incipient stage, the symptoms are such as to require nearly the same treatment as in simple catarrh. But if the inflammation does not yield, and is associated with hoarseness, aphonia, and the characteristic cough already described, more energetic and systematized measures are required. In enumerating these, we shall follow the order laid down by our Edinburgh contemporary, from whose pages we have already so freely borrowed in the preceding part of this article.

Rest of the Organ.—The condition most indispensable to the successful treatment of diseases of the larynx, is rest of the vocal apparatus. The patients ought to speak in a whisper, or content themselves with expressing their meaning in writing. Provided the patient do not exert himself to render what he says more distinct, Doctors Trousseau and Belloc are convinced, they say, from experience, that speaking in a whisper is not attended with any evil. This indulgence is the more allowable when we reflect on the extreme difficulty of keeping a patient silent for several months in succession.

Antiphlogistic Remedies.—Bloodletting is one of the most efficacious means which can be employed at the beginning of the disease. The authors above named prefer general to local. But if the disease have made progress, or the patient be enfeebled, the latter should be preferred, and will be best accomplished by the application of leeches to the trachea and larynx. The feeling of ease and relief expressed by the patient after their application is often great. Cupping on the nape of the neck we have seen to be of marked benefit; although perhaps not equal to the means just indicated. If there is reason to believe that the disease arises from suppression of the menstrual and hemorrhoidal discharge, leeches ought to be applied, in the former case, to the thighs or *vulva*, and, in the latter, to the *anus*. Emollient applications to the parts are rather injurious than beneficial, from their producing an afflux of fluids.

Revellents.—After the disease has been of some duration, counter-irritants, or revellents, will be found to be among the most efficacious of our remedies. Blisters are advantageous where kept long discharging. They ought to be applied to the back of the neck, because, when placed on the front, they create too much pain and irritation, especially in men with thick beards. Setons, and the potential cautery, applied to the anterior part of the neck are, also, very useful.

In milder forms of the disease the eruption produced by rubbing croton oil in a liniment composed of croton oil in the proportion of one or two drachms to an oz. of olive oil, once or twice daily, will have a good effect. Next to this, and in the rising scale of activity, is the ointment of tartar emetic, rubbed, as in the former case, over the front and sides of the larynx and trachea, until an eruption is induced. We have ourselves used iodine ointment in the same way with beneficial results.

Narcotics.—These are of great use in assuaging the pain, prickling, and cough. Belladonna, stramonium, and hyosciamus, have been severally recommended, the two former by friction to the anterior part of the neck. The salts of morphia, introduced by the endermic method, are, also, a valuable adjuvant to other measures.

Topical means.—These often become of primary importance in the cure of the disease, so much so, that without their aid the best devised general remedies are found to be inefficient in curing it. The topical remedies are classed under the following heads: dry or *moist vapours inhaled; liquid applications; powders.* We can readily admit, that if local applications could be made to the mucous membrane of the larynx without interrupting respiration, many cases might be cured which are now incurable. The French authors so often quoted take credit to themselves for having done this.

Most frequently the vapour of water was employed, either simple or charged with emollient, balsamic, or aromatic substances. Sometimes the vapours were dry, as the smoke of tar, resin, hyosciamus, tobacco, poppy, &c. The moist vapours have also been charged with chlorine, iodine, hydro-sulphuric acid, and different essential oils, with some effect on the mucous membrane of the air passages, as shown by the experience of Bertin, Gannal, Cottereau, Richard, and the Doctors Trousseau and Belloc. These two latter gentlemen have, also, caused patients to inspire cinnabar, sulphuric acid, &c., with very variable results. But all inhalation, of whatever nature, is liable to the objection that the substance inhaled is not confined to the larynx, but comes in contact with the mucous membrane of the lungs, which it may irritate. It is impossible to limit its action, and hence the necessity of restricting ourselves to the employment of emollient, aromatic, balsamic, and narcotic vapours, and such as cannot exercise any sinister influence on the lungs.

The liquid applications are muriatic acid, so highly extolled by Bretonneau in *diphtherite*, or the extended inflammation and false membrane over the fauces, pharynx, and larynx; solutions of the nitrate of silver, of the corrosive sublimate, and of the sub-nitrate of mercury; and the caustic solution of iodine, as recommended by Lugol. Of these, the solution of the nitrate of silver is entitled to the most confidence.

To apply these solutions, Doctors Trousseau and Belloc make use of a fine sponge of a spherical form, from six to eight lines in diameter, which they fix firmly to a bit of whalebone, forming at one of its extremities an obtuse angle of about 95°. By means of this instrument they are enabled to touch the surfaces of the epiglottis, the pharynx, and superior part of the larynx. These gentlemen have, also, another means of effecting their object. To a small silver syringe like that of Anel's, a canula at least five inches in length, and curved at its free extremity, is attached. The syringe is filled three-fourths with air, and one-fourth with a solution of nitrate of silver. The canula is then introduced into the posterior fauces, opposite the larynx, and the piston being rapidly advanced, the liquid, mixed with the air in the syringe, falls in a fine shower on the superior part of the larynx and œsophagus. The seizure of the patient with a violent fit of coughing need not give any alarm. He is to be directed, immediately after, to gargle his throat with water, acidulated with muriatic acid or with salt water, which decomposes that portion of the solution that had not combined with the tissues. Several interesting cases might be adduced in proof of the efficacy of this mode of treatment.*

Medicines in the form of Powder have been applied to the larynx by means of insufflation. Among these are magistery (sub-nitrate) of bismuth, alum, acetate of lead, sulphate of zinc, and sulphate of copper. Calomel and red precipitate also produce remarkable results in cases of ulceration, whether syphilitic or not, of the mucous membrane of the larynx. All these, except the sub-nitrate of bismuth, which may be employed pure, ought to be mixed with powdered sugar-candy, in variable proportions, according to their activity or the impression desired to be produced. Insufflation of any powder into which mercury enters ought not to be repeated, especially at first, more than two or three times a-week. A tubular contrivance, by which insufflation is performed, will readily suggest itself to the practitioner.

General Remedies after the antiphlogistic ones already mentioned. A *mercurial course*, even in cases not syphilitic, has been of manifest and permanent benefit. But before resorting to it, a careful examination and inquiry ought to be instituted, in order to ascertain the state of the lungs. If they be tubercular, or predisposed to tubercles, the use of mercury will be prejudicial, and not unfrequently most disastrous. Analogous, in some respects, as an alterative, and free from most of the objections which apply to mercury, is *iodine*. In various affections of the trachea, bronchial mucous membrane, including the disease now under consideration, we have ourselves used it with much satisfaction; because with marked benefit to the patient. More especially have we had cause to be pleased with its effects, when with its use was associated that of the compound syrup of sarsaparilla. The *balsam of copaiba* is worthy of trial. We can speak, experimentally, of its efficacy in some of the forms of this disease, more especially when combined with the sarsaparilla syrup.

Sulphureous Mineral Waters, though of secondary importance, are useful, especially in recent or slight cases of the disease.

Applications to the Pharynx. We might, when stating the means by which topical applications are made to the larynx, have added, that these are not always to be restricted to this latter organ. Diffused as is the chronic inflammation and its consequences over the mucous membrane of both the pharynx and larynx, it may naturally be supposed that the applications necessary and useful to the one are equally called for in the other. Indeed we know that by altering the state of the lining membrane of the pharynx by appropriate topical means, we procure a corresponding healthy action in that of the larynx. In all chronic affections of the latter, we ought, as already advised, make careful inspection of the former. A relaxed and elongated uvula, if not contracted by astringent lotions and caustic applications, should be excised. When *angina pharyngea* co-exists with chronic laryngitis, we should touch two or three times a-week the tonsils and arch of the palate with a pencil of nitrate of silver, or a solution of the same, or a powder composed of six or eight grains of the salt to about a drachm of powdered sugar-candy. A saturated solution of corrosive sublimate, or of sulphate of zinc, or of copper, will fulfil the same indication.

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* Another mode of applying caustic solutions is that practised by Mr. Cusack. A brush of lint, of the requisite size, is sewed on the end of the finger of a glove, which is then drawn on the index-finger of the right hand. The patient should be made to gargle with warm water, and the lint being dipped in the solution, can be at once, and with great facility, carried to any part of the pharynx, and even to the rima.

There is occasionally an extreme state in this disease short of death, but which, if not relieved speedily, ends in dissolution. We refer now to the imminent danger in some cases of suffocation: a present remedy for which is found in tracheotomy. Before speaking definitively of this last resource, we shall introduce some appropriate remarks on the subject by Dr. Stokes:—

> "In some cases spasmodic exacerbations occur, so severe as to threaten the life of the patient. These are more frequently met with in females, and demand a careful study. The suddenness and violence of the attack, the absence of corresponding fever, and of tumefaction of the epiglottis, will, in general, suffice for diagnosis. I have often seen cases in which the suffering was so severe, as that, at the instant, performance of tracheotomy was advised, yet in which the breathing was restored to its ordinary condition by the following simple treatment: the feet were plunged in warm water, the body enveloped in blankets, and a draught,—consisting of camphor mixture, ammonia, valerian, ether, and opium,—exhibited, and repeated according to circumstances. Under this treatment symptoms will rapidly subside, which from their character and continuance would seem to demand the knife; and I would advise that in all cases, previous to the performance of tracheotomy in chronic laryngitis, the question be carefully investigated, as to whether the urgent symptoms are the result of spasm or organic obstruction. Let it never be forgotten, that, even where organic disease and thickening of the larynx exist, spasm may supervene, and be met by appropriate treatment. We are not much attached to the doctrine of diseases being necessarily separate, but experience tells us that nothing is more common than to see spasm following organic disease, or organic disease occurring after a purely nervous lesion.
>
> "In cases showing this liability to spasm, the belladonna or other anodyne plasters may be usefully employed."

Tracheotomy ought not then to be performed, except when the patient is threatened with suffocation, and all the promptly available medicinal means have been had recourse to. Freed from the fear of seeing his patient die of apoplexy, the physician may proceed to treat the affection of the larynx in a suitable manner, and when the organ is capable of performing its functions, the canula can be withdrawn and the wound allowed to heal. Even should the disease be of such a nature that the passage of the air through the natural canal is afterwards impossible, the canula may remain for an indefinite period, and the life of the patient be lengthened. A case is given by Doctors Trousseau and Belloc of an individual wearing one of silver for ten years. Though the disease be of the cancerous or tubercular species, the operation will be useful, because the life of the patient will be prolonged till the constitutional irritation have subsided.

We have already spoken of an elongated and relaxed uvula as a cause of chronic laryngitis, and of the advantage from excising this part. The following specification of symptoms relieved by this operation, and described by Dr. Stokes, will very well find a place here.

> "1st *Case.*—Cough, coming on at night on the patient's lying down. It is incessant, and accompanied by wheezing, dyspnœa, and restlessness. Nearly complete absence of symptoms during the day.

"2d.—Cough of a laryngeal character, with a feeling of stuffing and tickling of the throat, alteration of voice, and hawking up of mucus.

"3d.—Symptoms very analogous to humid asthma, with a loud, sonorous *râle* over the chest.

"4th.—Symptoms of the dry catarrh in old persons, without laryngeal cough; strida, or alteration of voice.

"5th.—Symptoms of chronic laryngitis, hoarseness, some strida, loud cough.

"6th.—The preceding symptoms, combined with hectic and purulent expectoration, so as to resemble true phthisis laryngea.

"7th.—All the usual constitutional symptoms of phthisis: such as cough, puriform and bloody expectoration, hectic, emaciation, quick pulse,—yet without the signs of pulmonary tubercle."

It was our intention, at the beginning of this article, to close it with some remarks of a hygienic character, respecting the causes which operate with such direful force and frequency on gentlemen of the clerical profession, in the production of laryngeal phthisis. But we find that to carry out our original plan would lead to a more lengthened essay than is compatible with room and the introduction of other matters into the present number of the Journal. We shall, therefore, postpone until next month what we have to say, in the shape of retrospective notice, existing errors, and an amended future, bearing on the subject of Clergyman's Sore Throat.

ELEPHANTIASIS.

By Wm. Nelson, M.D., of Charlotteville, Va.

We give insertion, with pleasure, to the following brief notice of an unusual and troublesome variety of disease. We should be glad to hear again from Dr. Nelson.

In April, 1836, I was invited by an imminent lecturer of Charleston, S. C., to see the subject of this disease, and from notes then taken the following description is extracted: A negro, aged about 40, two years since was affected with blotches on the face. These are not now apparent, but the cicatrices consequent upon the ulceration of these tubercles, have distorted the mouth, drawing it towards the left ear. The eyes are disposed to weep: but the morbid action has exerted its greatest violence upon the extremities. The hands are almost entirely disorganized by a process of ulceration, which has removed the bones of the fingers, together with most of their muscular covering. The thumb of one hand has lost the bones of both phalanges, though the muscular portion is left, with the nails appended to it. The scanty remnants of the fingers are tuberculated, and marked by the scars of old ulcers. The feet are wholly occupied by the disease, ulcers affording a thin fœtid discharge, rendering motion almost impossible. "The subcutaneous cellular tissue of the sole of the foot is so engorged that it appears flat," the toes bearing marks of a process similar to that which has destroyed the fingers. The engorgement has extended above the ankles, but not so high as the knees. The sensibility of the skin is impaired, and the patient complains of "numbness" in the members. The inguinal glands are enlarged and painful, especially when the ulcers on the feet are worse, which is usually the case in damp weather. The digestive and respiratory functions are regularly performed. The patient is more than ordinarily intelligent. Though of a warm temperament, there is no evidence of that *libido inexplibilis* which authors affirm to be characteristic of certain cutaneous diseases. This disease is not contagious; for though this man has cohabited with a wife, by whom he has several children, she has never contracted it; nor has she ever had any thing *resembling* it, by which her constitution might have lost the capacity for receiving it, had it been communicable. One of the children, however, presented some symptoms, which led to the suspicion that it had *inherited* this curse. No opportunity for treatment was afforded; but no hope even of relief could have been encouraged from the result of previous treatment, however varied.

I have called this a case of Elephantiasis Græcorum, though "the numerous large tubercles of the nose, forehead, and ears," which are deemed characteristic of elephantiasis, are absent. These symptoms were also wanting in cases of the disease described by Winterbottom as occurring in Sierra Leone. In the other features of the malady, his description would suit the present case. May not the virulence of the morbid action, which usually exerts itself first upon the ears, forehead, alæ nasi, and throat,* have been diverted by the occupation of this man (a labourer on a rice plantation, I believe, at the time seized, and of course much in the water) to the extremities?

Perhaps it may be proper to mention, that the high authority of the gentleman by whose courtesy I saw the case, is adverse to the arrangement of the disease under the head of Elephantiasis. He leans rather to the opinion that the case is one which has not been described at all: one other, similar to it, has fallen under his observation, in a wide practice of twenty years.

USE OF CHLORINE INHALATIONS IN ACUTE AND CHRONIC BRONCHITIS, AND IN BRONCHORRHŒA.

By M. A. Toulmouche, of Berlin.

The greater number of the experiments, the inferences from which are here related, were made during a period of four years and a half, in a "Maison de Detention," where pulmonary catarrhs are very common. The majority of the patients have borne very well the first impression of the chlorine; and all have become capable of employing it, by gradually accustoming themselves to it. With the fewest exceptions,—such as where great irritability and oppression existed,—the chlorine was employed in every case which bore the name of pulmonary catarrh, acute or chronic, inflammatory or pituitous. Its sensible effects is to change the quality of the bronchial secretion, to diminish its quantity, and finally to put a stop to it.

The result of the use of chlorine in 228 females is recorded in this paper.

Of these 228, 141 were affected with acute, and 65 with chronic, bronchitis; 17 of which latter were double, 4 complicated with pulmonary emphysema, and 22 with phthisis. Of the 141 acute cases, 51 were cured in from five to six days; 33 in from seven to ten; 29 in two or three days, and 21 in from eleven to fifteen. The greater number were thus cured in from five to eight days; the smaller in from eleven to fifteen; a result much superior to that which is obtained by the ordinary means. Of the 65 cases of chronic bronchitis, 16 were cured in from twenty-one to ten days; 15 in from eleven to ten; 13 in from two to ten; and one only in eight days. The average of cures requires, therefore, from sixteen to thirty days. This is regarded as a period of treatment two or three times shorter than that which is commonly employed. The ordinary dose is from thirty to forty drops, commencing with ten, and gradually increasing. M. Toulmouche has employed as many as 180 drops, but he does not consider that the value of the remedy is thus increased.—*Bulletin de l'Academie Royale de Médecine*, No. 6. 1836.

TOBACCO IN TETANUS.—By Dr. Cavenue, of Martinique.

M. Cavenue, practising in a country where the occurrence of tetanus is very frequent, has had recourse to the use of enemata of infusions of tobacco in many cases, and with great success. He has recorded various instances of recovery after this treatment; sufficient, indeed, to call renewed attention to a mode of practice which, although already employed in this disease, is less known and appreciated than it deserves to be. Of the successful cases recorded in this paper, two are of traumatic tetanus: one following suddenly on the use of a cold bath during profuse perspiration; and another, subsequent to the bite of a serpent, which is almost always fatal in its effects. M. Cavenue recommends the use of tobacco generally in the bites of poisonous serpents; and the same means may be worthy of employment in cases of hydrophobia. This is rendered more probable from one case which is related, of a young negro, who became the subject of trismus from a wound produced by a fragment of glass. He presented hydrophobic symptoms, and recovered after an antiphlogistic treatment, to which was added, with the most evident advantage, the employment of a tobacco lavement. Nothing is said as to the quantity of the vegetable which should be administered. M. Cavenue appears in one case to have used a quantity which would be enormous in the healthy state. But the strength of the remedy must, probably, be always proportioned to the intensity of the disease. In serious cases, from one to two drachms would probably be sufficient, as in the Enema Tabaci of the London Pharmacopœia.—*Bulletin de l'Academie Royale de Médecine*, No. V. 1836.

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* Bateman and Rayèr.

ON NUX VOMICA IN AFFECTIONS OF THE DIGESTIVE ORGANS.

By Thomas Mellor, Esq., Surgeon, Manchester.

Mr. Mellor informs us that he has been in the habit of employing nux vomica in disorders of the digestive functions for several years, and with the greatest benefit. The cases in which it has been most beneficial are those of pyrosis from functional disorder of the stomach, in which Mr. M. considers it as "almost a specific; so immediate, and in most instances so prominent, has been the relief obtained." In pyrosis from organic causes it is very useful. In almost all cases of dyspepsia, also, not complicated with inflammation of the mucous membrane, but where the stomach is obviously debilitated, as indicated by pain and distention after eating, flatulence, &c., Mr. M. considers the remedy as advantageous. He exhibits the nux vomica in the form of powder, in doses of three, four, or five grains, suspended in cinnamon water, with mucilage and some tincture of cardamoms, thrice daily. He has never found any ill effects from it.—*Med. Gazette. March* 4, 1837.

DEATH FROM PRESSURE IN A CROWD.

A paper by Dr. Ollivier, of Angers, was read on the 20th ult., giving an account of the persons squeezed to death on the Champ-de-Mars, the 14th of June, 1837.

Twenty-five persons perished, of whom 11 were men, and 12 women; their ages varied from 8 to 75.

Among the women there were five who were decidedly fat.

All of them, men and women, died standing; so that more than one corpse was borne along in this attitude by the crowd.

In all, without exception, the skin of the face and neck was of a uniform violet tint, spotted with blackish ecchymoses. In nine there was infiltration of blood under the conjunctiva of the eye. In four there was sero-sanguineous froth running from the mouth and nose. In four there was blood flowing from the nostrils. In three there was blood flowing from the ears. In seven fracture of the ribs. There was no mark either of strangulation or of a wound by any stabbing or cutting instrument.

It is obvious from these signs that all these individuals died from asphyxia, produced by violent and continued pressure on the chest; and an idea may be formed of the force of this pressure from the fractures of the ribs observed in one-third of the victims.

Sixteen bodies were opened. In all the blood was black, diffluent, and filling all the large veins which enter the heart. The pulmonary tissue was mostly of a reddish brown, and in three quarters of each lung, posteriorly, there was a considerable accumulation of black and liquid blood; but there was no ecchymosis either on the surface or in the substance of the lungs. In all the cases where the conjunctiva was raised by infiltrated blood, and in those where blood had flowed from the ears, the vessels of the pia mater and of the substance of the brain were gorged with blood. The uterus of one woman contained a fœtus of from five to five and a-half months old. Thus every thing combined to show that death was the result of the suppression of the mechanical phenomena of breathing.—*Lond. Med. Gaz.*

ON THE CURE OF HEADACH BY THE APPLICATION OF LEECHES TO THE SCHNEIDERIAN MEMBRANE.

BY JOHN WALKER, M. D.

This mode of local depletion in affections of the head has, we believe, become more frequent since the publication of Mr. Wardrop's treatise. It is certainly very beneficial in certain cases, and is likely to be the more accredited because it is one of nature's ordinary remedies in congestion in this region. Every practitioner must have witnessed relief from severe headach, by the spontaneous flow of a very small portion of blood from the nostrils. We had occasion to notice a very striking case of this kind during the late influenza, in the person of a medical friend. Dr. Walker says, he has "found much benefit from this mode of treatment in the painful headaches peculiar to pregnant females; in those arising from irregularity or total suppression of the catamenia in plethoric habits; and in a few depending upon biliary derangement." Five cases of headach are briefly related, in which from one to four leeches, applied to the membrane on each side of the septum of the nose, were productive of immediate and permanent relief.—*British Annals of Medicine. March* 31, 1837.

[We have used, personally, this remedy, and prescribed it to some others, in the manner mentioned above, with the best effects.]—*Ed. Eclec. Jour.*

ENDERMIC APPLICATION OF MORPHIA.

BY EDWARD GREENHOW, M.D.

The following cases treated on the endermic method, I think valuable, as demonstrating that the same class of remedies which afford but a very partial and temporary relief when exhibited internally, will sometimes effect a complete and permanent cure when applied endermically.

The endermic plan of treatment gives the physician a more speedy and immediate control over certain neuralgic affections, than can be obtained by internal remedies, and I think it is not improbable that this method of treatment may be found available in some diseases of the same class which are little under the influence of ordinary means, such as tetanus and hydrophobia.

The first case I have to record is that of a lady, 77 years of age, who had been suffering for upwards of four months from a constant dull pain extending from the shoulder to the elbow, which the slightest attempt to raise the arm converted into an acute darting pain which did not subside for some minutes; she passed miserable nights, in consequence of the recumbent position bringing on the paroxysm; her appetite had failed, and her general health became seriously impaired. Before I saw her, blisters had been applied, opiates had been administered, and other means employed which it is not necessary to mention, but without experiencing any relief. On the 20th of April I directed a blister to be applied over the shoulder-joint, and on the evening of the following day, the skin having been removed from the blistered surface, half a grain of the muriate of morphia was applied and covered with the dressing; the patient passed a better night than she had done for many months, the darting pain being wholly suspended. However, in the course of the following day the pain returned, and I directed the morphia to be applied both night and morning; finding the pain, notwithstanding, still return at intervals, the quantity of morphia was increased to a grain, and subsequently to a grain and a half, which was applied for the last time on the 30th, just ten days from its commencement, at which time the acute darting pain had quite ceased, and although some dull sense of uneasiness remained, it was quite bearable, and the arm could be moved in any direction without pain; the patient now passes comfortable nights, and has regained her appetite and usual state of health.

The second case was that of a gentleman, 65 years of age, who had been suffering for some weeks from an acute pain about the pyloric orifice of the stomach; the pain generally came on an hour or two after eating, but not invariably, for sometimes it awoke him early in the morning, and often in an evening he vomited the food which he had taken during the day; this gentleman had been subject to these attacks for some years, and always suffered for several weeks before they yielded to any mode of treatment. On the 4th of May, I directed a blister to be applied to the pit of the stomach, and the day following to commence with the application of half a grain of the muriate of morphia night and morning, and to take a scruple of the carb. of soda, three times a day. The first application afforded relief, and on the eighth it was discontinued, since which period the patient has continued quite well. It is worthy of remark that both this patient and the former one were labouring under severe spasmodic coughs, and in both instances they got well under the use of the morphia.

The third case was that of a young lady, 24 years of age, who had long been labouring under dyspepsia, and latterly suffered acute pain, which came on an hour or two after taking food: she had been taking opium an hour before each meal, and had also had a blister on the pit of the stomach, but without obtaining relief. On the 10th of May I directed half a grain of the muriate of morphia to be applied night and morning: after the second application there was no return of pain, and after six applications it was discontinued, and by the use of chalybeates, &c., she has been restored to perfect health.

The fourth case, which in point of date should have been placed second, was a man 40 years of age, who was suffering under an attack of sciatica, which not yielding to the usual remedies, I ordered a blister to be applied over the hip-joint; this was on the 23d of April, and the day following he commenced the application of half a grain of the muriate of morphia night and morning. This not affording relief it was increased to a grain, and continued to the 2d of May, at which time the patient felt so little remains of uneasiness that he resumed his usual occupations.—*Lond. Med. Gaz.*

TOXICOLOGY.

CASE OF POISONING BY ARSENIC MIXED WITH BEANS.*

BY MM. BARRUEL AND CHEVALLIER.

The following Report is valuable from the clear and methodical manner in which it is arranged.

"We, the undersigned, have been requested to analyze some French-beans, (haricots,) contained in a small flask, in order to discover whether they contain any poisonous substance, and particularly arsenic, and in what manner these substances had penetrated the beans, whether by boiling or otherwise; also to say whether two garments belonging to C. contain any portions of arsenic:—We have examined with the greatest care every part of these clothes, to discover whether there was arsenic either upon them, or in their folds, but without success. We next examined the pockets, and turned them inside out on a sheet of white paper: on examining the seams, we only found some bits of dry bread mixed with some foreign substances, and some down, but nothing had the appearance of arsenic or any other poison. Not trusting however to the appearance, we introduced the substances into a test-tube with distilled water, and boiled them for a considerable time. The liquid thus obtained had neither smell, taste, nor colour; treated by various tests, and particularly by sulphuretted hydrogen, it did not become yellow, nor furnish a precipitate. With iodine, it turned to a blue colour, indicating the presence of fecula arising from the crumbs of bread.

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* We take the English version of this article, with a few slight additions, from the British and Foreign Medical Review, after having perused the original now before us.—*Editor.*

The beans contained in the flask were spread on white paper: we found, 1st, there were twelve in number; 2d, they were mixed with other substances, and particularly with seeds of flax of a brown colour; thirteen of these were found. There were also a small stone, and a considerable quantity of a black substance which gave the beans a disagreeable appearance, which would have disgusted those to whom they might have been given. The little stone was broken, submitted to the action of heat on burning charcoal until it became red, but it was not altered, and gave out no smell. Six and a half of the beans were introduced into a small glass vessel, and submitted during three quarters of an hour to the action of distilled water, assisted by heat. A part of the decoction thus obtained was filtered, and treated with sulphuretted hydrogen in the presence of the said C. Immediately the liquid became yellow, and presented all the characters of a solution of arsenious acid, treated with sulphuretted hydrogen. The same beans were several times boiled in successive portions of distilled water, in order to separate all the arsenious acid, and each decoction filtered. The filtration was very slow; it took twelve hours, and the residue was preserved. Wishing to discover if the arsenious acid had penetrated into the interior of the beans, the epidermis of five and a half was most carefully removed with a penknife; they were then introduced into the glass vessel with distilled water, and boiled. On treating the decoction with sulphuretted hydrogen, the fluid became immediately of a yellow colour, as in the former instance. These beans were boiled in successive portions of water; the decoctions were slowly filtered and the residue preserved, together with that previously obtained. The epidermis that had been removed was also boiled and filtered; the fluid was mixed with that obtained from the beans, and the residue with the two other quantities.

The experiments having proved that the beans from which the epidermis was taken contained as much arsenious acid as the others, we thought it advisable to mix together all the liquids, in order to determine the quantity of arsenious acid contained in the twelve beans. Those portions which had already been tested with sulphuretted hydrogen being mixed with the rest, a stream of sulphuretted hydrogen was passed through the liquid in order to precipitate the arsenic as a sulphuret. The liquid precipitate was poured in small quantities at a time on a very small filter, in order that the sulphuret of arsenic should not be dispersed over a large surface: this process was tedious, lasting three days, owing to the viscidity of the fluid from the fecula it contained.

The sulphuret, having been collected on a small filter, was washed with distilled water, and the liquid put aside for examination. As it would have been impossible to detach the sulphuret from the filter by mechanical means, it was treated with liquor ammoniæ, so that the filter, when washed and dried, was completely colourless, proving that all was dissolved. The ammoniacal solution was then evaporated until dry, by a very gentle heat, in a porcelain capsule. As fast as the ammonia evaporated, zones of a yellow colour were seen adhering to the sides of the capsule. The residuum, which was of a yellow colour, was dissolved in a quantity of a solution of caustic potash sufficient to detach it completely from the sides of the capsule to which it strongly adhered: this solution was evaporated in a watch-glass, after having been mixed with a certain quantity of black flux, and, when sufficiently dried, the watch-glass was broken, and all was introduced into an apparatus, in which it was subjected to distillation. The sulphuret of arsenic being decomposed in this operation, the metallic arsenic was condensed, and weighed one centigramme, which is equal to thirteen millegrammes of arsenious acid, or the white oxide of arsenic.

As we were also required to ascertain if the beans contained any other poisonous substance, the liquors from which the sulphuret of arsenic had been obtained by filtration were evaporated in a porcelain capsule by means of a gentle heat, to the consistence of extract. This extract produced slight acid reaction with litmus paper: it had neither a bitter nor an acid taste: we triturated it during two hours with successive quantities of alcohol at 36°: the alcohol became of a slightly yellow colour, and when evaporated to dryness it left a hardly appreciable residuum of a yellow colour and slightly salt taste; when treated with concentrated nitric acid, it changed to no colour indicating the presence of a vegetable poison. This negative result was foreseen, as the alcoholic extract had no other taste than that of common salt. That part of the extract insoluble in alcohol was treated with water, which almost wholly dissolved it, except some flakes of vegetable matter. The aqueous solution, when filtered, was not changed by the addition of hydrosulphate of ammonia; the tincture of iodine gave a violet blue precipitate, owing to the fecula of the beans.

The solid residuum formed, 1, of the beans treated with their epidermis, 2, of the beans without their epidermis, 3, of the epidermis which had been removed, was introduced into a flask and soaked for twenty-four hours in water saturated with sulphuretted hydrogen. This residuum did not change colour, indicating that it no longer contained arsenious acid; and also that no metallic oxides capable of being coloured by sulphuretted hydrogen were present. The residuum separated from the fluid was treated several times with boiling alcohol. The alcoholic solutions, evaporated to dryness, left a certain quantity of fatty matter in which no trace of an organic poison could be detected. Finally, the residuum of the alcoholic solution was again dried, then carbonized and incinerated in a new porcelain crucible; the result was a large cinder, in which the presence of carbonate and phosphate of lime, silica, and a small quantity of oxide of iron, without any other mineral, was demonstrated. From these facts it is proved,

1. That the beans we examined contained arsenious acid (white arsenic).
2. That the arsenious acid appeared to have penetrated the beans by ebullition, the acid having been recognized in the beans deprived of their epidermis.
3. That the proportion of the poison was thirteen milligrammes to twelve beans.
4. That the beans contained no other poison.
5. That the clothes and pockets of the said C., contained no poison.

Annales d'Hygiène publique et de Médecine Légale, Avril, 1836.

BIBLIOGRAPHY.

Hitherto we have acknowledged the reception of a work, large or small, from its author or publisher, by a notice of its contents, and generally some critical remarks on its execution and scope. We cannot, however, we find, continue this course, although the most satisfactory to our feelings; and we must e'en content ourselves with the simple announcement of many an Essay, and sometimes more voluminous publication, sent to us. To a certain extent the object of the parties most interested will still be accomplished. As time and space allow we shall be glad to do more.

An Address delivered before the American Physiological Society, at their First Annual Meeting.—June 1, 1837. By F. W. Bird. Published by the request of the Society. Boston: Marsh, Capen, and Lyon.*

By that which among critical reviewers will be considered an excess of frankness, since they are supposed to know all matters, past and present, connected with literature and science, and to have the gift of second sight, if not of prophecy besides, we freely acknowledge that we were ignorant of the existence of this "American" Society, until we received the Address with the above title-page; at the very head of which is inscribed Physiological Reform. We are aware of the censure to which we expose ourselves by this avowal. Had it been merely a Boston, or even a Massachusett's Physiological Society, we might have found some excuse, on the score of its restricted locality, or of sectional prejudice on our part, which made us indifferent to the doings of even our brethren in the literary emporium, or in the Bay State. But not to be aware of *the* American, and of course National Society, and that society for the reform of our favourite branch, is, indeed, too bad. Our only hope, however, is, that the frankness of our confession will be received as a kind of atonement for our *wrong* of omission to this great physiological society.

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* This brief notice was written two months ago.

But, waving any disquisition into the point of etiquette or forms of introduction, and regardless whether the sentiments be promulgated under the auspices of a magnific society, or by an humble individual unannounced, let us proceed to notice the "Address" in question. It would seem, from the tenor of Mr. Bird's remarks, that we are to understand by physiological reform, not the reform of physiology, but the rigid and regular application of known natural laws of the animal economy,—in fact, of physiological laws,—to the government of men's conduct in reference to their mode of living: eating, drinking, sleeping, waking, walking, &c. For the intention, we give the author credit, and, at the same time, commend his sincerity and zeal. This subject is, truly, without using any figurative language, of vital importance to every individual in a community called civilized. We have, ourselves, at different times, and through various vehicles, urged it on the attention of our fellow-citizens, at the risk of our being misunderstood, and still more misrepresented. We cannot, therefore, but sympathize with others who do battle against prejudices and habits detrimental both to bodily well-being and to the mind's purity and vigour.

Mr. Bird, in a short preface, disclaims sincerely, as we believe, any expectation or wish for the publication of his Address. It is, in fact, rather an exhortation to fearless action, a declamation against the tyranny of bad habits, than a methodical specification of the wrong in these respects, and a distinct enunciation of the right and the remedy. It startles rather than convinces; threatens more than it persuades.

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We had intended to examine, in some detail, the character of Doctor Dunglison's late work, "*The Medical Student; or, Aids to the Study of Medicine,*" &c., but have been prevented by the unexpected length of certain articles in the last and present number of the Journal. On farther reflexion, we are not sure that it would be desirable to carry out our original plan, since in so doing we might be led to a display of differences of opinion between the author and the critic, respecting the plan and execution of such a work, which are not, perhaps, absolutely called for at this time. We should be sorry, indeed, by any strictures of ours, however well meant, and they could only be uttered in such a sense, to retard the circulation of this volume amongst those for whose use it is intended. The object of the author is a laudable one, and time and more extended observation of a very difficult theme will, we dare say, modify his manner of treating it on a future occasion.

His friends will doubtless have remarked to him, that the *Glossary* and *Vocabulary* do not belong to a work like the present, any more than to a dictionary of Chemistry, or of Natural Philosophy, or of Botany. The room which they occupy could be better filled up were the author to tax his mind for the purpose. To the Bibliography it may be rightly objected, that it is meagre both in the list of works in the several departments of medicine, and in the accompanying notices of their nature and contents. The remarks by the author do not constitute a *critique raisonnée*, nor an analysis even of the contents of the work. We should say, that timidity more than want of knowledge has marred the performance of this portion of the volume. The Editor of this Journal has certainly no reason to complain of silence towards his humble labours, but he must, in connexion with his fellow-labourer and friend in the translation of Broussais's Physiology, positively decline the honour unjustly paid them to the detriment of the distinguished Frenchman. After noticing the general contents of the Appendix added by the translators, Dr. Dunglison says: "This is, perhaps, the most valuable portion of the book." Most valuable indeed! There is more profitable thought displayed in the chapters on the Intellectual Functions, and on Abnormal Assimilation, alone, to guide a physician, than in hundreds of pages of appendix of mere physiological detail, collected by we care not whom,—one or many,—in single or conjoined effort.

Dr. Hamilton's *Introductory Address to, and Catalogue of, the Students* attending his lectures on Anatomy at Auburn. The zeal of this gentleman, under many discouragements, the chief being the want of sympathy for his pursuits in community, is highly commendable. Doctor Hamilton, although prevented from demonstrating and dissecting the recent subject, does his best to supply the deficiency by both dry and wet preparations, coloured engravings, &c. We wish there were more lecturers on Anatomy in the country: we should like to hear of one in every town and village even—not to teach medical students alone, but also every youth who is ambitious of acquiring useful knowledge.

A Narrative of the Dissolution of the Medical Faculty of Transylvania University. By Lundsford P. Yandell, M.D. Nashville, 1837.

Thoughts on Schools of Medicine, their Means of Instruction, and Modes of Administration, with reference to the Schools of Louisville and Lexington. By Charles Caldwell, M.D.

Animal Magnetism, Essay on, by B. Haskell, M.D. Boston Med. and Surg. Journal. Sept. 20, 1837. The purport of this Essay may be known by the two opening sentences. "The evidence in favour of Animal Magnetism accumulates on all hands. Events which have lately transpired in a neighbouring city, leave to ridicule no excuse to amuse herself with facts, which reason cannot comprehend." If the reference to a neighbouring city means Providence, we will just content ourselves at present with remarking, that the somnambulistic lady there has not been able, or has not chosen to read certain passages—words or lines neatly folded several times in paper, and inclosed in vials hermetically sealed, which were sent on to her from Philadelphia. This would have been a small matter for so accomplished a personage: one who could see through letters in many folds, books and their covers, &c. Another request has not been complied with. It was simply to extend her vision, or use her travelling eyes, or travel in the spirit to this city, and narrate what she saw in the office of one of our physicians. Unfortunately for us, this lady, who could beat the *diable boiteux* himself in travelling through the air, and telling all the transactions which occurred under the roofs of the houses as she went along: she, who was not deterred from entering into a vault and telling, as a grand secret, what every gossip in Providence must have known: became suddenly frightened, even to be almost thrown into convulsions, whenever she attempted to enter the said office of our medical friend. The exceedingly terrific nature of the matters in it is best known to the gentlemen who visited it at particular hours, from day to day, the times specified to her when she was to make her observations. We believe that no person, gentle or simple, except this highly gifted lady, could see or imagine any thing to alarm, in the contents or appearance of the office. But we need not anticipate details which our friend will himself, at the fitting time, make public, and which, while they reveal absurdities and imposture, will add to what is really demonstrable in animal magnetism.

Lecture, Introductory to the Course on Pathology and Practice of Medicine, in the University of Virginia, for the Session 1837–8. By R. Eglesfeld Griffith, M.D., Charlotteville.—Professor Griffith gives good advice both for the study and the ethics of the medical profession. He is himself competent to teach both with success; and we have no doubt that by this time his class is of our opinion.

On Scarlatina, in a Letter addressed to his Son. By William Ingalls, M.D.—This pamphlet is made up chiefly of the narrative of cases of scarlatina which occurred in the author's family. He is opposed to the detraction of blood by the lancet or leeches; and of the use of cold water by affusion he has had no experience in this disease. We can only wish that his fears were less and his experience more. We will not dispute with him about the *subtonic* power of chalk mixture; but when he recommends, as part of the treatment, *warm clothing*, and stimulating and nervine medicines in small doses, we cannot carry our forbearance thus far.

Reports, and other Documents relating to the State Lunatic Hospital, at Worcester, Massachusetts. Printed by order of the Senate. Boston, 1837.—Our thanks are due, and cordially given, to Dr. Woodward, for a copy of this valuable collection. We must give it as much publicity as lies in our power, for the benefit of other states and corporations engaged either in the erection or superintendence of lunatic asylums.

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ON THE USE AND ABUSE OF THE PESSARY.

[Read before the Philadelphia College of Physicians, Dec. 5th, 1837.]

BY JOHN T. SHARPLESS, M.D., OF PHILADELPHIA.

In the year 1826, I published a paper in the Philadelphia Journal of the *Med. and Phys. Sciences* of this city, in which I enumerated a series of morbid symptoms which I considered depended upon a descent of the uterus from its natural position. At *that* time, the generality of physicians approved of mechanical means to restrain, and even cure, acknowledged cases of that disease. The point of my paper was simply to designate particular combinations of symptoms that I thought depended on such a source of irritation, whilst the mass of the medical public were not aware of the true cause, and also to recommend the oval or notched pessary (although not a new shape) for particular cases. Since that time, many very respectable physicians have denied that prolapsus was the immediate cause of certain well-known symptoms: and when that disease became nearly or quite self-evident, discarding the pessary entirely, they have depended on rest, &c., for the cure, or the application of a simple bandage to retain the organ in the vaginal cavity.*

With these discrepancies in medical belief and practice, it is of the first importance to suffering female humanity to determine, if possible,

Firstly: *What causes can produce certain symptoms, usually considered, as dependant upon what is termed* Prolapsus Uteri?

Secondly: *Under what circumstances can these symptoms be relieved by mechanical means, and which are the best inventions for the purpose?*

It has become a melancholy truth, that through the operation of climate, habits, or other causes, the females of our country have become, of late years, exceedingly subject to uterine affections. When in Europe two years since, I took some trouble to learn if such diseases were on the increase in that part of the world, and if they could possibly be as rife as with us. From what I ascertained, on the best medical authority in London and Paris, I was induced to believe, that, although those maladies were very frequent, and cancerous cases more common than with us, yet the proportion of uterine affections was less than in the United States. What the causes are that produce these destroyers of female health and comfort in our country, it would be difficult to ascertain; but, from the frequency with which we see several members and even generations of a family afflicted with them, it would seem, either, that the germ of disease, or a conformation that was peculiarly susceptible to the operation of causes to produce or develop the malady, was hereditarily transmissible.

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* Doctor P. K. Eve, in an essay in the *South. Med. and Surg. Jour.*, condemns the use of the pessary entirely, and cannot conceive of any case requiring such a mean of cure. In aid of his opinion, which he acknowledges is founded upon *no* experience of his own, having *never* used one, he adduces the evidence of some of the very respectable physicians of the south, several of whom condemn them, and others think their employment has been much abused. The argument and most of the evidence merely prove the latter opinion, and that, like many other invaluable remedial agents, the pessary is in the *descendent*, and becoming unfashionable, and therefore will be soon *entirely useless*. The positions of Doctor Eve are, I think, entirely disproven in a reply by Doctor Antony, one of the editors of the Journal.

The latter is the principal that can be said of what is called hereditary phthisis, and the same tubercular diathesis that generates consumption in one member of a family, will produce chronic diarrhœa, chronic hepatitis, disease of the spine, or uterine derangements in others.

Curious as it may seem, our trans-Atlantic growth, or culture, has effected considerable change in the actual shape and proportion of various parts of our system, as indicated, by Cuvier, in the shortening of the upper eye-lid, and as I have observed myself, and no doubt others have done the same, in the contracted chest of our females, whilst the hips and cavity of the pelvis are enlarged, with an increased distance between the hip and lower ribs.

A fruitful secondary cause of uterine diseases, is, I fully believe, the system of tight dressing, with a stiff or even unyielding "bone" in front. The unnatural compression in *all* cases, of the internal organs by these "*straight jackets*" is easily understood, whilst the support below being lessened by the increased cavity of the pelvis, and a diminution of the usual lateral protection by the width of the unribbed flank, (mentioned above as a peculiarity,) render the lower viscera more likely to be forced down, and in this confined or even compressed condition, they become, of course, more subject to disease. It is this *lateral* compressibility that gives our American ladies the reputation, over the world, for beauty of waist. Even the *front* bone is no doubt a source of mischief, for, in stooping, it presses into the abdomen just above the pubis, and its replacement, after apparent cure of the Irritable Uterus, has, in several instances in my practice, produced serious relapses. For months, therefore, after *all* manifest disease has disappeared, I forbid the restoration of the "bone," or of lacing the jacket below the true ribs.

A very frequent cause of chronic uterine disease is, too early maternity, and I think I am safe in saying, that a majority of marriages under seventeen or even eighteen years of age in the female, is followed by some such derangement. The reason is easily understood. The immature female structure is called upon to perform a duty, in a feeble condition, that should only belong to a full development and perfection of health and strength, that, in our climate, does not appertain to that age.

I now come to the FIRST regular division of my subject, or, *What causes can produce certain symptoms, usually considered, as dependant upon what is termed* PROLAPSUS UTERI ?

These symptoms of prolapsus are fully detailed in my essay referred to, and *most of them* can be found in other works on the same subject.

No physician has, I believe, the temerity to deny the existence of *all* these symptoms in various cases; the opposers of the pessary merely dispute a "falling of the womb" as the cause; for, say they, "we find all *these* very complaints when there is no perceptible certain displacement, as determined by the *touch*, and in cases where the uterus has descended considerably, and has even appeared externally. there are often no such symptoms found." Let us, for a moment, inquire, what is the natural situation or elevation of the womb, and how can any man determine, in many cases, by the finger or any other means, *when* a morbid descent *has* occurred.

During many years of extensive practice, with my attention particularly directed to uterine derangements, I have very often found myself utterly at a loss to say whether the organ was in its natural position or not. Anatomists inform us that the os uteri is found *about* three inches from the external orifice. Now, I am certain that I have felt the uterus, that appeared to be healthy in *all* its relations, less than two inches, and in other cases nearly four inches, from the os externum; and this difference depending on the size of the pelvis, a deep and narrow chamber holding the uterus higher than one that was shallow and wide. This latter description of cavity is more generally associated with "real prolapsus" and easy labors, whilst the former is prone to produce, by its contraction, the more active diseases of the womb.*

The majority of index fingers are about three inches in length; and it depends, very much, upon the position of the patient and her fleshiness, if we can reach an uterus that is three inches from the opening. This is sometimes impossible, unless the limbs are much flexed, and some force employed. Moreover, what do we gain by a horizontal examination, unless adhesions have bound the organ to its unnatural situation. By getting the patient to strain moderately, or cough, we can form some idea of its ability to descend; but an upright posture of the body with the limbs *together* and flexed—as sitting with one limb entirely *over* and the other *on* the edge of a chair, and which allows the examination to take place with the patient's back to us, and therefore in as delicate a manner as when in bed, can alone determine its relations during walking. Granting, therefore, the positions of the *Antipessareans*, it will be difficult for them to prove, in many cases, that there was, or was not, an unnatural descent. Suppose a case. We have a certain set of painful symptoms—examination finds the womb one or two, or even three inches from the external opening; there is no enlargement, or engorgement, or tenderness, or indeed any indication of local *disease*; what shall we call it, and how treat it? A name does nothing but convey an idea, and if we expel from our practice a mean of almost *certain* relief in *such cases*, merely because it does not *always* cure and may *sometimes* do harm, we might extend the reform to all the materia medica. I *never use a pessary for Prolapsus Uteri alone.* It must bring with it a cortège of pains and distresses, for which I prescribe. I care little where the uterus may be, unless I find from its position externally, that disease will soon follow, and I then merely use a bandage and pad or other contrivance of the kind to retain it in the vaginal cavity. It is the symptoms, commonly considered as dependant on prolapsus, that demand attention, whether there be apparent "falling" or not. These very symptoms are *often* found where there is no physical reason to believe there is a true "falling." This has occurred in my practice many times, and where I could find neither in the spine, nor elsewhere, any satisfactory cause for the distress. In these cases, recumbency entirely relieved, as it does in prolapsus. Now, what can be the source of all these pains? I would say, it arose from a neuralgic,* or an irritated condition of the upper supports of the organ, or of the surrounding parts, by which neither the *ordinary* weight nor motions could be borne without the production of distress. We all know the excitability and extended influence of the Sympathetic nerve, and how closely its interests and peace are interwoven with those of the viscera of the pelvis. It requires but little to arouse it, and when affected its turbulence is felt to the extremities. The Spine should never be neglected in these cases, as there is a reciprocal sympathy between *it* and the contents of the pelvis. This Neuralgia may also be found in the body or neck of the uterus, and will simulate every evidence of "falling." There is usually great tenderness on pressure, and perhaps some tumefaction *per vaginum*, and it will sometimes come on as suddenly as a blow, and produce the most violent torture. I have recently had an instance in a married lady of seventeen years of age, where a strain in the performance of fæcal duties brought on excessive agony. Examination internally detected great tenderness, but no displacement, and some hours elapsed before relief, when the uterus had ceased to be painful to the touch. Neuralgia of the uterus may become chronic, and be relieved, or not, by recumbency. It may also extend to, or be found alone in, the vagina, and produce the same symptoms, and from nearly the same cause as when in the ligaments, it not being able to bear the weight and movements of the superincumbent organ. There is sometimes a thickened and extremely painful condition of the whole perinæal mass, which does not depend on inflammation or its consequences, but pressure upon it from within outwards is sometimes agonizing. The weight of the viscera upon this tender flooring will produce a result almost insufferable, and be felt over all the lower body. All the various Engorgements and Indurations, whether acute or chronic, of the body and neck, will assume most of the phenomena of prolapsus, and which do not appear to depend entirely upon the depression that the increased size and weight of the viscus would naturally produce. I presume nervous irritation to be the cause in a great measure.

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* It has been doubted by many physicians, that prolapsus, without enlargement of the uterus, could occur in virgins, from the naturally contracted and firm state of the vagina; but I have certainly, on several occasions, found the os tincæ of an uterus of natural size within one inch, during uprightness, of the internal labiæ, and at this moment I have a patient with an os externum so contracted that the finger enters with difficulty, and the uterus is met in half an inch from the labiæ even in a recumbent posture. If an uterus in that situation, and accompanied by all the usual symptoms of "falling," can be called prolapsed, there is no question of the existence of such a lesion in virgins; but I have never met with such a case without great *irritation* being found in the uterus and vagina. The displacement in these cases probably occurred from a violent exertion, and the irritation, from the compressed situation of the organ.

The ordinary superficial ulcer of the os tincæ (as discovered by the speculum) I have known, often, to cause the most extended abdominal and spinal distress, and even to give that curious pain under the ribs which has been considered almost pathognomonic of prolapsus. That the ulcer was the cause, was proven by the removal of all discomfort, by its healing, whilst absolute rest, astringent washes, and the pessary had entirely failed. I have also met with cases, where a loose, flattened tumor, conveying the idea of an ovary, could be felt *very* high up, sometimes on both sides, pressure upon which gave excruciating pain that darted up to the flank just above the hip, particularly on the left side. I can also recall several instances, and one in particular that occurred last spring in a lady from New York, where excessive abdominal and pelvic distress had been felt for years, and where, upon examination by the touch, the *only* indication of disease that could be found, was the existence of several extremely tender glands or tumors of the size of peas between the uterus and just below the projection of the sacrum.

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* I mean by *Neuralgia* that nervous tenderness that is independent of inflammation. It may attack a part sensibly organically diseased, or may be found in structures *apparently* in perfect health. The nerves, in these cases, may remain morbidly sensitive for a long time, and yet not affect the blood-vessels, producing neither thickening nor redness. *Irritation* is the first stage of inflammation, and cannot exist without producing a change of structure to a certain extent. This stage may exist a long time, and yet develop little of the *active* inflammatory character.

An irritable or inflamed bladder, with or without the presence of a stone, will simulate prolapsus. I have had under my care a case where the descriptive symptoms induced several of the most eminent surgeons and physicians of our city, including Doctors Physick and Dewees, to consider it a decided uterine disease of some kind; but where, upon examination, that organ and its immediate connections were found sound and in place. The urethra was at last discovered to be the seat of the evil, and the application of caustic to its entire inner membrane by Dr. G. M'Clellan has now nearly removed the most distressing suffering that could well be conceived, and which had defied, for several years, the most elaborate plans of practice.

SECONDLY: *Under what circumstances can these symptoms be relieved by mechanical means, and which are the best inventions for the purpose?*

Where a pure, uncomplicated prolapsus occurs, attended by the usual painful indications, the proper employment of a suitable pessary will, in a very great proportion of cases, remove most, if not all, of the symptoms; and unless age, or the long duration of the disease, or absence of general health prevent, it will, with good management on the part of the patient, in time, often entirely cure. Confinement for months, injections of various kinds, &c., although occasionally useful, I believe, are far less successful in the result. I have fully tried almost every plan of practice that has been proposed, and am assured that the proper use of a pessary is not only the least disagreeable, but the happiest in its effect of any mode of cure thus far discovered.* I have seen cases that from idiosyncracy could not bear the constant presence of a foreign body in the vagina, although the indications for its use were manifest. Here, palliatives or other plans of relief become the only resource. The truth is, there are few cases even of simple displacement that will bear a pessary without some preparation, and the great error has been in their indiscriminate employment, and without the preliminary treatment. I presume, most physicians, whose attention has been drawn to uterine diseases, have observed that there are fewer cases of uncomplicated prolapsus *now* than there were a few years since, and the more serious engorgements, &c., have succeeded.

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* There is a restless, dissatisfied temperament occasionally met with in the treatment of other diseases, which, after a real suffering for years, allows the imagination of the patient to become so identified with the genuine symptoms of the malady, that when the disease has really gone, the ideal sufferings remain as acute as ever. This is particularly the case in prolapsus, and the patient will often think herself unrelieved, when the indubitable external evidences of perfect health have convinced, to the contrary, every one but herself.

To understand the principle upon which an internal mechanical support relieves, let us inquire, what change takes place in the position of the uterus in prolapsus, and its degrees. When in its natural situation, and the subject standing, it is, I believe, usually found parallel in its long diameter to the line of the sacrum, and therefore points *downward* and *backward* at an angle of perhaps seventy degrees. When it has descended a short distance, it becomes perpendicular; and when it reaches and lies upon the floor of the cavity, it reclines on its back nearly horizontally. When a flat pessary is introduced, if the organ be very high, it is probably not reached by the instrument at all; if half descended, and the pessary resting horizontally, the cup receives the os tincæ at a right angle with its own diameter; and, as the vagina appears to me to be an inverted conical cavity, the instrument ascends, carrying the organ with it, until it reaches a space of its *own* size. Of this fact I am practically well assured, and therefore increase the diameter of the pessary as much as possible without producing pain in the wearing; finding, in a vast many cases, that a large support will ascend almost out of reach and relieve proportionably, whilst, in the same patient, one of less diameter will uselessly rest upon the perinæum. When the viscus lies upon the floor of the cavity, as in the second degree of "falling," the pessary, instead of receiving the uterus perpendicularly, supports it as it lies, nearly across the cup, lifting it from the irritated and irritating membrane, and, although a foreign body, it does often, notwithstanding the outcries of the unbelievers, act like a charm in giving relief. Dr. Dewees once remarked to me, he did not care for the *size* of the instrument, so that it was retained,—a small pessary, if it could be held, relieving as much as a larger one, every condition of descent. In this particular, I take the liberty, however presumptuous, of differing. In his published cases, perfect relief appeared to have been obtained by an instrument, the floor of which, and where the os tincæ would rest in the first degree of displacement, was not more than one line in thickness; and if the machine did *not* ascend, as I have just supposed it to do with a large pessary, it could only have raised the viscus *that* distance. If the "falling" was in the second degree, the *sides* of the pessary supported the recumbent body, and elevated it their own thickness, which was perhaps half an inch. The benefit from a small pessary, therefore, must have been derived, in a great measure, from a prevention of the friction of the uterus on the sides and bottom of the vagina during its perpendicular and lateral swinging, as in walking, by steadying it, and keeping the irritated surfaces apart, and also by a slight distension of the canal producing a tonic and firmer condition of the inferior uterine support. If the finger be introduced where a small pessary is worn, with the patient in an upright position, the front edge of the instrument can be felt offering at the opening, and ready to start out, and not standing across the pelvis, as many suppose, with the front edge up behind the pubis. It merely lies there supported by the perinæum, and kept from escaping by a contracted os externum. If all vaginas were of the same shape, the effect of an instrument that would occupy the entire cavity of what should be the *proper* extent of the vagina (as Cloquet designed in his pessary predicated on a cast of the chamber,) and that would have an unvarying point of support, could be reduced to a mathematical certainty; but the instrument is yet to be invented or applied, that will, either by resting against the junction of the uterus and vagina, or by supporting the viscus itself, hold it in its proper elevation and position, and yet have a firm and unchanging *point d'appui* for itself.*

Neither is the globular form† in accordance with the philosophy of the matter; it gives, moreover, an unnatural obliquity to the neck of the uterus, whilst the depressed globe has never, in my experience, retained the os tincæ in its cavity. I here mean one that is merely depressed on one side, and without any aperture, for a very thick "flat" approaches in its form a globe deeply indented on both sides.

The disrepute that has befallen the pessary, has arisen, in great measure, from our very imperfect knowledge of its *modus operandi*; and, consequently, of its correct form and application. As I have alluded to the subject of my essay of 1836, I will here remark, that a more enlarged experience has satisfied me, that the very cases where I considered the notched or figure-of-eight flat pessary most required, can be managed with less difficulty and danger of displacement by the circular and globular. The *ordinary* flat pessary I consider *almost* useless from its thinness, and therefore select those that are an inch in thickness, with just depression enough to give a bed to the neck, and declivity sufficient to lead the secretions through the aperture.‡

Of Hull's abdominal supporter, and a somewhat similar contrivance of Dr. Annan, of Baltimore, I will merely remark, that where the uterus is disposed to pass through the os externum, or even to press hard upon and distend the perinæum, they are, perhaps, the best external applications that we have; but they can *only* retain the organ in the cavity, and, by supporting the fallen viscus, relieve some of the distresses incident to that condition. I consider an abdominal support of great service in many cases where the bowels feel as though the subsidence of the lower viscus had produced an aching void that required pressure to relieve.§

I will here mention an occasional consequence to the introduction of a pessary that, unless understood, will cause anxiety, and frustration of the benefit of this agent. In prolapses of long standing, with great descent of the organ, the superincumbent viscera, even to the stomach and liver, and perhaps higher, follow the lower supports, and sink below their natural position. When a large globe, for example, is introduced, the uterus is forced upward, and the superior organs are crowded on each other to such a degree, that violent pain in the side, flatulence, swelling, and tenderness of the abdomen, and even difficulty of breathing, have been produced. These annoyances have, in several instances, been so alarming, that I have been solicited to remove the offending body, where a few days of rest have dispelled every unpleasant feeling.

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* Dr. Meigs has lately used a pessary, which he considers promising in its effects, thus far, somewhat of the shape of the outer frame of a shoe-buckle, but very light, which operates against the posterior junction of the uterus and vagina, and passes up behind the pubis.

Dr. Reynell Coates has placed in my hands for trial a model of another form, which I have not yet employed, but which appears to me well worth the experiment. It will act on the same principle as that of Dr. Meigs.

† When I have occasion to employ a globe, I prefer those of glass, without any aperture, the weight of this shaped instrument being of little consequence, although of much importance in the flat. I can extract them with the greatest ease by a small vectis of my own invention, with a blade of a different rotundity at each end.

‡ The contact of any foreign body with a mucous membrane will usually increase the natural secretion of the part, and hence the introduction of a pessary will be often followed by a discharge. Unless this becomes extreme or diseased, it does not materially interfere with the usefulness of the agent, and an astringent injection will often restrain it. The most effective remedy in all unnatural or increased secretions from mucous surfaces, whether of the vagina or elsewhere, unaccompanied by inflammation, is the solution of the hydriodate of iron in doses of from five to thirty drops, three times a day, according to the strength of the stomach and bowels of the patient.

§ A very convenient and easily-constructed arrangement consists in a band of strong muslin sufficiently gored to fit closely over the hips, and reaching from the middle to the lower part of the stomach. Bones may be fixed to keep it spread on the back, and the lacing should be in front, with strong tapes to pass between the limbs to keep it in its place.

I will now describe other conditions of the organ where I have known the pessary useful.

In great fulness or prolapsus of the vagina, I have seen it do much good. In a case, in this city, there seemed to be almost double the usual quantity of material in the vagina, with the uterus healthy and in its natural position, and yet the patient suffered most of the indications of prolapsus of that organ.

All other applications having failed, a flat pessary was introduced that soon buried itself in the redundant duplications of the canal, and has excited the *vis tonica* in the part so much, that it has shortened itself nearly one half, and with great relief of previous distresses.

In the neuralgic vagina previously mentioned, the sensibility is often so excessive, that an examination to any extent is entirely precluded, and yet there are no evidences of inflammation or change of structure. In these cases, depletory treatment does no good, and although perfect rest and sedative applications partially benefit, the sensitiveness of the part will remain for months. These cases I treat on the principle long practised in the same condition of the rectum and urethra, by the bougie. These I have made of gum elastic of various sizes, and the patient employs them herself, commencing with the largest that she can introduce without much suffering. This is retained until all pain ceases, and when a certain size can be used without *any* inconvenience, the diameter is increased. They should never be introduced unless the patient is recumbent, and great care should be taken to avoid striking the womb, as inflammation might thereby ensue. I occasionally use some sedative ointment upon them* to assist in the relief. In all cases they should be covered by some oily or mucilaginous substance. This treatment is almost a specific for that distressing sensibility that has been found heretofore so difficult to cure, a few days being often sufficient to remove tenderness of several months' duration. To prevent a return of this neuralgic condition, even where there is no prolapsus, a pessary will continue the same principle of action, and should be worn for some time.† The bougie is also extremely useful in dilating the os externum in other diseases of the parts, to permit the introduction of a pessary of sufficient size to be of permanent benefit, thereby avoiding the exposure and pain of a frequent change of instrument.‡

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* As Opium or Belladonna.

† A silver pessary, connected by a wire with a zinc plate placed on the spine, would no doubt be useful in many cases where a galvanic operation would be serviceable. Clark's modification of Saxton's electro-magnetiser has been very beneficial in my hands in these very cases.

‡ In cases where leeching the uterus is necessary, there is often great contraction of the external orifice, and the introduction of a tube of sufficient size for that object is prevented. Here, the bougies will soon prepare the parts for all necessary purposes.

In Neuralgia, or irritation of the upper ligaments, where the ordinary weight and motion of the uterus cannot be borne, the pessary, even if it does not reach the organ, steadies and supports the parts so much as to be of great service.

In the cases mentioned of tender glands, or bodies between the uterus and sacrum, the pessary effected a relief of the violent pains, and the tumors disappeared; and although the uterus did not seem, upon the removal of the pessary, to have acquired any permanent increased elevation, the distress has not returned.

A young lady of this city had felt annoying abdominal and pelvic pains for several years, which had been believed by her physicians, several having been consulted, to arise from an extremely tender tumor of the size of a pea, near the os urethra, the agony appearing to commence at that point, and extend up into the body. The tumor was removed by Dr. J. R. Barton, with considerable relief. It, however, soon returned, and with it all the previous suffering. Frequent spasms, accompanied by entire loss of consciousness, had afflicted this lady for some years. Upon being called, I discovered an irritable, depressed uterus, which, by suitable treatment, soon lost its painful character, but upon renewed motion many of the former symptoms returned. A pessary was now introduced with immediate relief, the tumor disappeared, and every indication of permanent health has since continued.

In the case of a lady from a far southern state, I found a violently irritable tumor of the size of a filbert surrounding the os urethra, which had been accompanied by the usual annoyances of a real prolapsus for several years, to so great an extent, that she had been confined to her bed on several occasions for months, much to the destruction of her general health. Nothing was done for the tumor, but the uterus was supported by a pessary for five months, with the most triumphant success in removing every disagreeable local as well as general symptom of disease, and among which was a most incorrigible dyspepsia. The pessary was removed after she left my care by a western physician, travelling having excited a slight vaginal inflammation, and she informed me this summer, that there has never been a return of her former ailments, although several years have elapsed since the treatment.

We often find by the speculum* a redness and thickening, or ulceration of the mouth and neck, accompanied by all the afflictions that usually accompany prolapsus. By rest, leeching, and other suitable applications, all the ulceration, and perhaps the redness, will disappear, but the thickening and tenderness will

* Until the employment of this aid to our observation becomes more general and unrestrained in our country, we can never practise in uterine diseases, in that philosophical and successful manner that becomes the medical men of the present day. This prescription for maladies unseen, and I may say, in many cases unknown, although compatible with the delicacy that is perhaps moie the pride and ornament of American women than those of any other nation, partakes so much of quackery, and is so often utterly useless, that it becomes the duty of every conscientious practitioner to insist, in all cases where he considers it *absolutely necessary*, to be allowed the evidence of more senses than one. The *manner* of *solicitation* for, and *practice* of, the *privilege*, will be dictated by the refinement of feeling of every man who has a just appreciation of the modesty of the sex. The speculum I employ, and which I have used in a great number of cases since my return to America, is the bivalve of Doctor Ricord (Paris). He devoted much time to showing me the application and benefit of the instrument, and I witnessed the examination of near one hundred cases of various uterine derangements. It can be used with the most perfect ease, without the *least pain or exposure* of *any part* but the mere neck and mouth of the womb, and in no case need a more complicated contrivance be required.

often remain for some time, with a constant liability to relapse. In many instances, with the healing of the ulcer, all sensible inconvenience will be removed; but to protect the delicate cicatrice, and prevent a reëxcitement of the disease, by the friction of the parts, I introduce a mere ring, which does not touch the mouth, but which allows the new surface to harden. This practice I have found of great use. I have even successfully depended on the ring with mild injections to remove some ulcers of long standing.

In Hypertrophy, whether the sequelæ of other disease, or an "exaggeration of nutrition," where the dragging and other symptoms demand particular treatment, there is nothing to compare with the pessary. The prolapsus in these cases is generally from increased weight in the organ.

In a majority of cases of Acute Metritis, after the subsidence of the inflammatory stage, I introduce some mechanical support either of sponge or harder material for a short time, and I am fully assured that the congestions and chronic enlargements that so often remain, may be avoided by supporting the organ. We thus prevent the displacement that would occur from the increased weight, and by giving the patient fresh air and gentle exercise as early as is proper, we allow the viscus to recover its natural bulk in its *proper* situation.

In Engorgement, or Induration,* either simple or scirrhus, of the whole organ or in part, without inflammation, I do not mean slight tenderness, for *that* is found in almost every morbid condition of the uterus, I *try* the pessary whenever the dragging, &c., becomes troublesome, and often with great benefit. In some of these cases, the diseased viscus descends almost to the external opening, and forms adhesions, so that, immediately upon passing the internal labiæ, the finger meets a mass of hard matter that has no resemblance to the neck or body of the womb. I have recently had a case of this kind in a lady eighty years of age. Four years since I found her nearly in this situation, and suffering from excessive dragging, with great pain in the back and stomach. After some difficulty, a pessary was retained with perfect relief. Within a few months of the present time, imagining she was permanently cured, she begged the removal of the internal support, but in a few weeks she reapplied to have it restored, her old sufferings having returned. By this time, the diseased mass had descended into and closed up the vagina so much, that a very small pessary required the aid of a bandage to retain it until it had made a lodgement for itself. This was effected in a few days, and then a larger one was used, and, in the fourth change, her old instrument was restored, since which time she has felt no inconvenience.

Another case has occurred to me, which not only proves the usefulness but the harmlessness of the pessary. A lady wished one removed that she had worn for twenty-eight years, which had never incommoded her, but she feared it might produce other diseases. She had been, during the whole time, free of the symptoms for which it had been applied. After some difficulty, an oblong hoop of rope was extracted, that, she said, was once covered with wax, but which was now incased in a hard shell of lime more than a line in thickness.

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* Duparcque has so multiplied and, I may say, mystified uterine diseases, that it is impossible to draw intelligible *descriptive* lines between his various divisions; and as for exact clinical diagnosis, that is in many cases utterly in vain, nothing but autopsy will determine it. Neither is it very important in practice, for close inquiry, a fine touch, an experienced eye, and discriminating judgment will enable a physician to do his duty without a particular knowledge of such fine-drawn distinctions.

In less than a month, the lady desired to have another pessary introduced, as all her long-forgotten pains had returned. I found a prolapsed, shapeless, indurated mass almost immoveably fixed in the lower part of the vagina. A glass "flat" was applied, that restored her in one week to her former health.

There is a disease very common in our city, in which the uterus is not materially affected in its body, nor affords much indication of distemper, but there projects from its anterior or posterior surface, and firmly attached to it, an enlargement somewhat like half an egg, divided lengthwise. Sometimes, there are several tumors. These are probably tuberculous masses springing from the outer uterine surface, as I have noticed them most frequently in women predisposed to such deposits in the lungs. These tumors are sometimes very tender, and all the appliances of *active* practice will fail to remove, entirely, the projection or its irritability. In several cases of this kind, where there was a slight prolapsus, after sufficient previous treatment, I found a soft pessary give no pain; and in a short time, although the tumors were not always removed, the tenderness was so materially lessened as to give no more uneasiness, and the general health became good. I have several times known pregnancy to occur in this variety of disease, and after the maternal enlargement had subsided, the original tumor was found about in the same condition as before, and requiring the same application to produce ease and good health. I have not considered the *constant presence* of the perforated flat pessary incompatible with conception, *that* condition having occurred several times within my own observation, and I have heard others make the same remark.

I have an unmarried patient at this moment, who had suffered for many months with aching pain in her feet and ankles to such a degree that she could hardly put her feet to the ground. She also had an irritable uterus, slightly depressed, and for which she had worn a pessary; but it produced so much inflammation that it was removed, although she acknowledged that it had relieved the dorsal and pedal distress. The latter affliction, however, soon returned with great violence, and the instrument was restored at her particular request, with an entire relief of the pain in her feet; and, thus far, no vaginal irritation has been reproduced. This inconvenience in the lower extremities, I presume, arose from pressure on the sacral nerves.

In anomalous pains of the back, abdomen, and pelvis, and even thorax, that are felt only in an upright position, and that do not appear to have a spinal or *any other* tangible origin, the pessary, even where there is no apparent prolapsus, will sometimes act like a charm. This may be called imagination in the patient, but its good results are too demonstrable to be conceited.

A constant predisposition to abortion I have known in several instances entirely removed by supporting the uterus until quickening: the temporary prolapsus, from the increased weight, and the consequent irritation, being thus prevented. Confinement for several months would, perhaps, have yielded the same result; but to most women the former is the least disagreeeble remedy.

A pessary used a few days previous to, and during the catamenia, has often relieved the great distress of dysmenorrhœa, and has in time effected a cure. Dr. Antony, Georgia, in the reply to Dr. Eve already alluded to, advocates the same practice.

Having now so particularly described cases suited to the pessary, it becomes unnecessary to dwell upon those where its employment would be inadmissible; a few directions for its management will indicate sufficiently the circumstances *improper* for its application.

Under the impression that certain symptoms are always caused by prolapsus, and that for this lesion a mechanical support is indispensable, some physicians, without investigating the particular causes that may originate the distress, and the *exact* condition of the parts, have introduced a pessary themselves, or given it to the patient to use. In *every* case, even of simple prolapsus, it is absolutely necessary that the precise state and position of the organ be learned, in order that all irritation may be first removed, and that a suitable pessary may be selected; and then the physician should make the application himself.

Case.—A respectable practitioner, after a very superficial examination for uterine disease, prescribed rest, leeching, &c. When he *supposed* the parts were prepared, he gave the lady several pessaries, of various shapes and sizes, that she might select one that *she* thought would suit her. After many unsuccessful attempts either to introduce at all, or retain one without excessive pain, she was informed by her attendant that nothing more could be done for her, and that any instrument would do her great harm. Upon being called, I found an indurated uterus firmly adhering very low in the vagina. All appearance of neck had disappeared, and the mouth was patulous with reflected lips. There was some tenderness upon hard pressure, and the bearing down pain in the stomach and back was excruciating. After a few days' rest, a small flat pessary was introduced, but it produced so much suffering that it was replaced in twenty-four hours by a small globe. This was in a short time changed for a larger one, which effectually relieved the bladder of pressure, and all pain disappeared, except during the catamenia, and after great fatigue. An enlargement and tenderness of the abdomen, that had long annoyed her and prevented her fastening her clothing was removed, and she feels so well, that I am frequently thanked for the relief, and which is almost always accompanied by some observation upon the unsuccessfulness of my predecessor.

To give, in a few words, what I would consider the circumstances properly adapted to the use of the pessary, I would say, that it should never be employed until perfect relief had been obtained in recumbency, even during a cough or sneeze, of all those painful symptoms that were believed to depend upon uterine disease: the principle of its operation being only to remove these distresses that are produced by an upright posture; and even *then* the organ must bear lifting on the finger, with the patient erect and coughing, without much pain being felt.

A smaller pessary than it is thought will be required for permanent use, should be introduced first; and if there has been previous irritation in the region, rest for a few days will allow the cavity to become accustomed to the presence of a foreign body, and then whatever change that may be considered necessary in its size or shape may be made.

I will merely remark, in closing, that the pessary has had its ultra-admirers, and its uncompromising contemners; and that, like many other remedial agents, both friends and enemies have been mistaken in its powers. It can be made of great service when correctly applied, and will produce equal injury when used without judgment, and I think that no man will discard it from his practice who has studied, without prejudice, the effects of its proper application.

OBSERVATIONS ON VASCULAR APPEARANCES OF MUCOUS AND SEROUS MEMBRANES, AS INDICATIVE OF INFLAMMATION.

BY JOHN YELLOLY, M.D. F.R.S., ETC., ETC.

Dr. Yelloly observes, with truth, that nothing is more important for the successful prosecution of morbid anatomy, than the habit of accurately connecting the phenomena which present themselves after death, with the symptoms which occur during life; and of carefully distinguishing between the varieties of form and appearance which exist in healthy parts, and such as are the result of derangement or disease. He goes on to remark how necessary very careful attention and discrimination are, and how little disposed the best qualified pathologist sometimes feels himself to speak with decision on the nature of some appearances which come before him. Nothing can be more correct than are these sentiments, and all who are much acquainted with morbid anatomy, must have had sufficient opportunities of observing the confidence and decision of ill-informed persons on points of pathology which are really involved in uncertainty and doubt.

This is particularly the case with inflammation, a process so important that we ought to be thoroughly acquainted with it, and not always so distinct in its existence or its consequences as to permit us to speak positively with respect to either.

The characters of external inflammation are too well known to require repetition. It is known, too, because it is an object of sense, that death makes important alterations in the appearances which such inflammation presents. The redness goes off, except where effusion has taken place, and the remains of it are seen; while the tumor sinks, except in as far as any deposition in the cellular membrane has taken place, and may render it permanent. The blood, in fact, leaves, more or less completely, the arteries and veins, and all the phenomena which depended on its presence in them necessarily disappear in the same ratio.

"But," says Dr. Yelloly, "in the internal organs, and more particularly the abdominal viscera, various modifications take place, from the peculiar situation which these parts occupy in the animal body. Being nearly connected with a double series of venous structure, that of the liver, and that of the heart, in which a considerable portion of the blood is concentered after death, a retarding or obstructing cause operates on the veins which belong to them, and which, added to the softness of texture to which I have already alluded, very generally produces more or less fulness of the vessels, and thus an appearance of more or less vascularity, both on the external and internal surfaces of the chylopoietic viscera." 10.

It follows, as a matter of course, *that* vascular fulness in the dead body is delusive—*that* it is not present, when undoubted inflammation existed during life upon the surface—*that* it is present in the interior from the operation of circumstances which did not obtain before death—and *that* a knowledge and a careful consideration of these disturbing circumstances is indispensable, to enable the pathologist to decide what appearances are and what are not inflammatory. A florid state of vessels after death, for example, has often been regarded as a proof of arterial congestion, yet it merely arises from the arterial character of the blood remaining in the veins, for some time after its transmission from their continuous arterial capillaries.

The profession must feel indebted to any one who puts it in possession of facts which will assist it in the discrimination of genuine inflammatory appearances in the interior of the body. It has been Dr. Yelloly's aim to offer that assistance, and not only on this, but on a previous occasion, he has laid the results of many careful investigations before the medical public.

In the fourth volume of the Medico-Chirurgical Transactions, published in 1813, will be found a paper by our author, on the Vascular Appearances of the Human Stomach, which are often mistaken for inflammation of that organ. We shall recapitulate what he laboured to establish in that paper, for two reasons:

because, the majority, perhaps, of our readers are unacquainted with them, and because the deductions are not only highly important in themselves, but are so interwoven with the observations in the present paper, that it would be unnatural and mischievous to separate them. Dr. Yelloly, then, in his first paper, endeavored to show :—

1st. That appearances of vascular fulness in the villous coat of the stomach, whether florid or dark-coloured, in distinct vessels, or in extravasations of different sizes, are not to be regarded as unequivocal marks of disease; inasmuch as they occur in every variety of degree and character, under every circumstance of previous indisposition, and in situations where the most healthy aspect of the organ is to be expected.

2d. That from the circumstance of such appearances being in many cases not preceded by symptoms of inflammation, many authors of great eminence were led to the conclusion, that gastritis might exist in the living body, without the indications of either pain or pyrexia: that it was a very common and frequent complaint, even terminating occasionally in gangrene, though there were no indications during life of its existence; and that the absence of the usual symptoms of inflammation of the stomach, when unequivocal marks of such inflammation were supposed to be found on dissection, could not but be regarded as a very remarkable and puzzling circumstance.

3d. That the same misconceptions attached to intestinal vascularity; and that MORGAGNI himself, in order to get quit of the difficulty, was in some cases disposed to attribute the absence of pain, in inflammation of the bowels, to a paralytic affection, which took off the sensibility of the parts; but that, as this was a circumstance which could but seldom occur, he came to the general conclusion, that pain and fever were not necessary for the existence of enteritis. HALLER, too, was induced to infer, from so uniformly finding vascularity in his inspections, that inflammation of the bowels was almost constant in every kind of fever, and was frequent in every other complaint.

4th. That the supposition of a necessary connection between vascularity and inflammation, has led to erroneous conclusions in many cases of sudden death, where the effects of putrefaction, and the spontaneous changes which the loss of vitality produces on the human body, were misunderstood, and sometimes confounded with the proper and necessary operation of poisons.

5th. That some diseases of a very obscure nature, as hydrophobia, have been considered as examples of gastritis, and plans of extensive depletion adopted for their treatment, merely from the villous coat of the stomach exhibiting appearances of vascularity, though there was no palpable difference between such vascularity, and that which is ordinarily seen where there had been no affection of the stomach during life.

6th. That such vascularity is entirely venous, though sometimes florid, and sometimes of a dark red; that it depends on a power capable of being exercised on the artery itself at the close of life, which carries on the blood to the veins, after the further supply of fresh blood from the heart is stopped; and that the branched or stellated form of vessels, under which the vascularity usually appears, is capable of being imitated, whether by injection of the veins with fine injection, or by forcing back with the finger, or the back of a scalpel, the blood from the larger branches of veins into the smaller.

7th. That vascularity soon becomes diffused redness, by transudation through the coats of the containing vessels, just as happens with the bile in the gall-bladder, or in the speedy production of a blue colour, when the mesenteric arteries are injected with a solution of prussiate of potash, and the veins with that of green sulphate of iron.

8th. That digestion of the coats of the stomach after death, is by no means a common occurrence; inasmuch as extravasation does not take place in the great end of the stomach, however thin its coats may be, when fine injection is thrown into it, either by the superior coronary, or the splenic artery, as would be the case, if there were usually an erosion of the ends of vessels produced after death, by the action of the gastric juice, according to the opinion of Mr. HUNTER.

9th. That it is very difficult to ascertain, merely from the aspect of the vessels of a dead part, that they had been affected with inflammation during life, unless for the occurrence of unequivocal results of inflammatory action.

The preceding views are especially applicable to mucous surfaces—to the mucous membrane of the stomach in particular: then, to that of the intestines: then, to that of the trachea. It is the laxity of the mucous membrane, which renders it so liable to vascular turgescence after death.

They apply, with modifications, to the serous membranes. These, in health, exhibit no vessels which carry red blood; when inflamed, effusion of coagulable lymph very quickly occurs.

On the surface of the brain and cerebellum vascular appearances often occur, which, like those already mentioned, are principally the result of venous accumulation after death.

The spinal marrow is so seldom examined, that its healthy and morbid appearances are not, in general, accurately known. In order to ascertain the vascular appearances of the spinal marrow, uninfluenced by any disturbing cause except a particular mode of death, Dr. Yelloly examined it in three executed criminals. He subjoins a coloured drawing taken from one, and he adds, that—a florid vascularity, communicating a scarlet line to the whole column, is nothing more than venous turgescence, accompanied, as in the case of the stomach, depicted in his former paper, with slight extravasation.

Dr. Yelloly proceeds to examine and to criticise the foundations of the doctrines of Broussais and of Tommasini, the former of whom attributes general fever to inflammation of the mucous membrane of the stomach and intestines—while the latter regards it as essentially inflammation of the brain. The appearances on which these pathologists rely, as proofs of the correctness of their views, consisting essentially in increase of vascularity in the parts concerned, rather than in the presence of the undoubted effects of inflammation, we may readily conceive how delusive they may be. It is unnecessary for us to go into the question, for the hypotheses of Broussais and of Tommasini have been long regarded as fallacious. Morbid anatomy, the history of disease, and the effects of remedies, have all combined to show how hollow such exclusive theories are.

Quitting Broussais and Tommasini, Dr. Yelloly turns to M. Andral, a more exact, a less speculative, and, consequently, a more philosophical pathologist. In his earlier writings, M. Andral did not escape the error into which the former gentleman had fallen, and the appearances of inflammation and congestion were far from being distinguished with precision. But in his Précis d'Anatomie Pathologique, M. Andral has drawn the line more carefully and more accurately between the two conditions. It is well known that M. Andral has endeavoured to banish the term inflammation, and to substitute for it that of *hyperæmia*. In his nomenclature, inflammation is represented by *hyperémie active* ou *sthenique*—congestions, by *hyperémie passive* ou *asthenique*, when there is a diminished tone in the capillary vessels; *hyperémie mécanique*, when there is an obstacle to venous circulation; and *hyperémie cadaverique*, which occurs after death.

His deductions with respect to the *hyperémie cadaverique* are very similar to those arrived at by Dr. Yelloly in his former paper, both in reference to its cause, the circumstances under which it occurs, and its liability to be mistaken for a morbid appearance. We quote the following extract from Dr. Yelloly's paper, because the criticisms on M. Andral's opinions, are not deficient in pathological value.

"He considers it," says Dr. Yelloly, "as established by his observations, that the hyperemiæ which have come on during life, or after death, are not always to be distinguished from each other by their anatomical characters; and that simple inspection does not, in a great number of cases, suffice to determine the cause of sanguineous congestions found in pathological examinations. The gastro-intestinal membranes, he continues, may be indifferently white or red, according to the circumstances under which death has taken place; but as the circumstances which produce a red colour are most frequent at the close of life, it will oftener happen, that congestion of vessels in the alimentary canal will be found in the dead body, than a want of colour. It does not follow, however, he adds, that a red colour is any proof that disease existed in the alimentary canal during life; inasmuch as an intestine found to be red in the dead body, was not necessarily so during life.

"M. Andral attributes the position of intestinal congestion, with Messrs. Trousseau and Rigot, to the mechanical descent of the fluid blood, according to the posture which the body is made to assume after death; and in one case, where the vascularity was in the anterior part of the stomach, owing to the body lying on its back, he was disposed to refer the appearance to *gastritis*, which, with much candour, he states he should not do now. That this cause operates, to a certain extent, in producing the phenomenon in question, particularly when the larger vessels are concerned, is quite certain; but, though I have remarked, that vascularity is found 'principally in the posterior part of the great end of the stomach, and in the lesser curvature,' yet nothing is more common than to see great turgescence of vessels on the upper surface (in relation to the position of the body) both of the intestines and brain; and it occurs everywhere in the minute vessels of the inner membrane of the stomach and bowels, where an attraction is exercised between the coats and their contents, which prevents any material change of position in the latter.

"M. Andral is disposed to refer the transudation which takes place through the sides of vessels some time after death, to *putrefaction*. But I see no reason to alter the opinion which I have expressed on this subject, namely, that 'putrefaction will doubtless increase, but it does not seem at all *necessary* to transudation.' The animal fibre has a power to resist the passage of a fluid during life; but very soon after death, and long before putrefaction can be considered as having at all taken place, the power is lost, and various well known phenomena speedily occur in every part of the body, which are dependent on that unknown and inscrutable change, which the loss of vitality has effected in the animal machine. Transudation of bile from the gall-bladder, and of blood into the thoracic or abdominal cavities, are among the commonest examples; and the veins of the stomach and bowels will exhibit the same appearance in a day, or day and a half from death; but in a still shorter time if an inverted vascular stomach is extended upon a flat surface, and kept moist and undisturbed. I may mention too, as an additional proof of the same circumstance, the point mentioned at page 4 of this communication; and may add, that the same will happen in a tied carotid artery or intestine, containing either of the fluids employed, and made to dip into a vessel containing a portion of the other." 22.

There is a point which deserves some notice, because we cannot doubt that inattention or ignorance respecting it has not unfrequently led to error. It is this. The follicles which are sometimes exceedingly distinct in various parts of the stomach may readily be mistaken for minute ulcerations. To avoid that mistake it is necessary, of course, to keep the liability to it in view. Dr. Yelloly suggests, as a mode of determining the nature of the case, the employment of a minute injection. If there was ulceration, the injection would be extravasated. We fear the test is of too difficult application to be generally employed, and that the most practical recommendation is, to use great care in distinguishing the real state of the parts.

Dr. Yelloly alludes to the opinion of Otto, Trousseau, Rigot, and Billard—opinions which correspond more or less exactly with his own, and he adds:—

"It would have saved them, however, much labour, and perhaps, to a certain degree have modified some of their deductions, had they been so far acquainted with our Transactions, as to have known what had been done in this country on the same subject. Life is, indeed, too short, and the difficulties which attend the prosecution of philosophical inquiries too considerable, to afford that there should be no division of labour in science: and that men of talents and energy should occupy themselves in investigations which have already been prosecuted in other quarters, without being aware of what has already been done on the same subject. Science is common property, of which every one may avail himself at his pleasure; but the talents of able men belong also in a certain degree to the public; and it is a species of duty for such as are qualified, by their abilities and industry, to enlarge the boundaries of science, to employ themselves in the most provident manner possible for the common benefit."* 27.

We have quoted this passage, because it represents a fact which should be known. We are amongst the last who are likely to undervalue the labours of the French in science, and, more particularly, in pathology. But their very success has tended to encourage that vanity which is said to be their national characteristic, and to make them undervalue and neglect whatever is not done by themselves. The ignorance of the French, in reference to the state of medicine in this country is preposterous. Whilst they are behind us in all that is practical, with the exception of the mere *performance* of operations, they exhibit, if they do not affect, an utter indifference to our labours and our existing knowledge, and rarely notice either, unless it be to misconceive or to mis-state them. The consequences are such as might have been expected. Even in pathology, we daily see facts or opinions published as novelties by French writers, when they have been long anticipated here.† In practical medicine and surgery, we see plans of treatment proposed and lauded, which experience in this country has already sanctioned or condemned. We find ideas of disease prevailing undisturbed in France, which science has exploded in England.‡ And, finally, we are visited every now and then, by some French tourist, who, knowing little of our language, nothing of our literature, ignorant of our practice, and incapable of understanding it—pays a hurried visit to a few hospitals, where he sees not much, and comprehends much less—yet, is so charmed with his own sagacity, and so contented with his amount of information, that he publishes on his return to his own country, a full, and of course an accurate account of the medical science and practice of this.§—*Med. Chir. Rev.*

ABSTRACT OF THE REPORT OF M. DESPORTES ON THE SERVICE OF THE SALPETRIERE AND BICETRE LUNATIC HOSPITALS.

The work of M. Desportes consists of two sections. The first exhibits a series of eighteen statistical tables, giving an account of the number of patients for each year, the name or character of each form of the disease, the occupation of the patient, the causes of the insanity, the relapses, the length of time each patient was under treatment, and lastly, the issue of each case. The second comprises the practical and philosophical deductions which may be drawn from these tables.

These tables are arranged in three classes. In the first class are grouped the cases, which were observed during the years 1825, 6, and 7; in the second, those observed in the years 1828, 9, and 30, and in the last, those observed in the three following years, 1831–2–3.

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* "Considering the almost national character of the Medico-Chirurgical Transactions, it is very remarkable how little they seem to be known among the best French medical writers, even in reference to some of our most distinguished names. A curious exemplification of this occurs in Cruveilhier, who informs us in the 3d livraison of his Anatomie Pathologique, (pl. 6, p. 10) that he lately made a very convincing experiment ('une experience bien convaincante'), to prove, that disease on one side of the spinal marrow, produces its effect on the same, and not the opposite side of the body. But the point had been examined many years previously by Sir Astley Cooper, at my request, in consequence of the contradictory evidence on the subject; and a similar conclusion, confirming a valuable experiment of Galen, arrived at by direct experiment on a dog, of which an account was published by me in the first volume of the Medico-Chirurgical Transactions, p. 197."

† MM. Bouillaud and Magendie have, on several occasions, been convicted of this neglect of English medical literature.

‡ The French constantly treat chronic inflammation of the testis as cancer. They retain the terms and the ideas of white swelling, &c.

§ A Lyons surgeon lately gave a striking example of the assurance resulting from profound ignorance of all that a traveller, who affects to describe a foreign nation, should know.

Number of Patients admitted, discharged, and cured, during Nine years from 1825 to 1833 inclusive.

Admitted	8,272	lunatics.
Discharged, cured . .	2,763	
not cured	1,863	
Dead	3,854	

The relative mortality to the number of cases admitted may appear, at first sight, to be extremely high; but we are to remember, "que la mort frappe surtout les incurables."

The number of admissions during the last triennial period was greater than in either of the two preceding periods. The cause of this increase is most probably to be found in the agitation of the public mind induced by the revolution of July, 1831. In the following year too, the epoch of the cholera, there were more admissions than usual. A similar increase in admissions was noticed also in private lunatic establishments, during these two years. In an article published by Dr. Belhomme in the bulletins of the Medico-practical Society, he has particularly alluded to the influence of stirring political and public events on the development of insanity. "It seems to me," says he, "well established, that not only great political events exert an influence on the development of insanity, but also that the number of insane persons must necessarily have increased in France during the last forty years, in consequence of the violent commotions, which have succeeded each other during that period. That such has been the case, is clearly proved by the uniform increase of admissions into our great lunatic establishments after any violent excitement of the public mind."

During the nine years, to which the report of M. Desportes alludes, the number of admissions of female patients has been more numerous by about one-fourth.

M. Desportes observes that, by a singular coincidence, the number of insane patients under treatment and in a state of convalescence, which amounted to 318 on the 31st December, 1827, and to 3,127 on the 31st December, 1830, was exactly 318 on the 31st December, 1833.

In what months of the year have the admissions been most numerous? The following is a table in M. Desportes' report. Of 8,272 admissions during nine years, there were 281 during June; 268 during July; 255 during May; and 237 during April. From this table it would appear that the month of June, when the hot season commences, is the period of the aggravation of insanity.

Now as to the influence of the weather on the curability of the patients, we have the following data:—

Of the 8,272 patients, the months in which there were the greatest number of cures, were—

1st Series.—In March, 36; in October, 44; in June, 43; in August, 42; and in May, 42.

2d Series.—In October, 40; in July, 44; in August, 47; and in June, 48. In other months the cures were less numerous.

3d Series.—In September, 76; in February, 59; in May, 56; in July, 58; in August, 60; and in October, 67.

We see by these tables, that it is at the trimestral epochs, which are marked by a change of season, that the cures have been most numerous; and especially in the month of October, in which alone there were 151 cures.

M. Desportes furnishes us with the following average relative to the cures effected.

First Series.—Of 2956 there were 881 cured—1 in 335.

Second Series.—Of 2869 there were 884 cured—1 in 324.

Third Series.—Of 3354 there were 962 cured—1 in 361.

We are next informed that the female patients were kept longer in the hospitals than the males. The reason of this is, that the former may be more effectually and permanently cured. The men, having more means of subsistence, are of themselves generally more anxious to be discharged, when they once begin to feel themselves better. But it may be with propriety argued against this plan, that the danger of relapse must be the greater; and such, in truth, we find it to be the case.

Relapses are more frequent among the men than among the women. The following are the results of M. Desportes' report. In the first series, mentioned above, there was one relapse in every twelve men; whereas among the women there was one in every sixteen. In the second series, the proportion was one in every ten among the men; and one in every thirteen among the women. In the third series, the proportion was one in every nineteen among the former; and among the latter one in every twenty-two. He attributes this difference, in a certain degree at least, to the greater irregularity of life among the men, than among the women.

M. Belhomme is not quite inclined to agree with M. Desportes in this particular. He attempts to explain the difference by alluding to the difference in the cause and in the character of insanity among the two sexes. Among men, he says, it is most frequently idiopathic; whereas among the women, it is much more often merely sympathetic. Now the former, or the idiopathic insanity, is very frequently associated with lesions of the encephalon; while in the sympathetic form of the disease, there is generally no organic mischief, but only a morbidly excited state of the nervous system.

He adduces, as a proof of the correctness of these statements, that paralysis is much more frequent among insane male than female patients. This reasoning is certainly very plausible, and confirms, to a certain extent, the opinion of M. Belhomme, that idiopathic insanity affects men rather than women. We are thus furnished with a satisfactory explanation of the greater frequency of relapses among the male patients.

The following results, as to the mortality of the insane patients, are afforded us by M. Desportes' memoir. In the first series, there was one death in every six of the men, and one in every ten of the women. In the second and third series, the advantage is still more decided in favour of the women. The medium age of the deceased was, in the first series, between forty-nine and fifty among the men, and between fifty and fifty-one among the women; in the second series, the medium age among the men was forty-eight years, and among the women between fifty-three and fifty-four; and in the third series, it was between forty-seven and forty-eight among the former, and between fifty and fifty-one among the latter.

As to the months in which the mortality chiefly occurred, January seems to have been the most fatal.

The observation of other physicians agrees with this statement. The severe cold of winter appears to be very hurtful to the insane.

M. Desportes next proceeds to give an analysis of the occupations of the insane, their ages, and of the diseases from which the patients usually died.

The following table presents us with a view of the ages of the 8272 patients admitted during nine years.

From 10 to 19 years of age	626
„ 20 to 29 „ „	1568
„ 30 to 39 „ „	2024
„ 40 to 49 „ „	1683
„ 50 to 59 „ „	1051
„ 60 to 69 „ „	782
„ 70 to 79 „ „	484
„ 80 to 90 „ „	8
„ 90 to 99 „ „	2
Age unknown	15

The greatest number, therefore, was from thirty to thirty-nine years of age.

The professions or occupations also seem to have a very marked influence on the development of insanity.

It has been remarked by many observers, that there are always a number of insane sent from the army to the public lunatic hospitals. All persons too who have been subjected to strong mental or moral excitement, as love, ambition, or interest; merchants who have suffered reverses of fortune, or persons who have left off business, without betaking themselves to some active employment, are very frequently the victims of derangement.

The following table of the occupations of the patients, whom M. Desportes examined, may be interesting.

Among the male patients there were 445 day-labourers, 124 tailors, 161 shoemakers, 101 cabinet-makers, 81 masons, 97 clerks, 62 domestic servants, 17 washermen, 1 embroiderer, 23 cooks, and 1062 occupations unknown.

Among the women, there were 924 seamstresses, 397 domestic servants, 503 day-work-women, 188 washerwomen, 133 embroiderers, 88 cooks, 50 shoemakers, and 339 occupations unknown.

The great frequency of insanity among females, who have been milliners and seamstresses, is perhaps not to be wondered at, when we remember that so many of these poor creatures are, from their personal charms and other circumstances, more exposed than others of their sex to seduction and ultimately to destitution and poverty. The grief which follows, their anxiety and distress if they become mothers, the anguish of disappointment, are unquestionably the causes of the frequent occurrence of insanity among them.

M. Desportes remarks that insanity is more frequent among female, than among male *celibataires*. The following statement is very interesting, as it shows that the unmarried life is decidedly more exposed to the misery of mental derangement, than the "dual state," as the poet Cowper terms matrimony.

The *celibataires* of the two sexes were in the proportion of 47-16 in every hundred cases admitted into the hospitals; married persons in the proportion only of 3-55 in the 100; widowers and widows in the proportion of 13-27 in the 100; and those who had been divorced, or whose civil condition was unknown, in the proportion of 4-7.

The most frequent and powerful predisposing and exciting causes of insanity, among the patients examined by M. Desportes, will be seen by the following statement:—

Predisposing Causes.—Hereditary predisposition in 736 cases; defect of intellectual development in 642 cases; and premature or natural old age in 753.

Physical Causes.—Cerebral congestions or hæmorrhages, inducing paralysis or delirium, 656; epilepsy and convulsions, 492; efforts of menstruation, critical period of life, 383; consequences of parturition, 218; pregnancy, 48; hysteria, 100; abuse of spirituous liquors, 414; poverty and destitution, 109; syphilitic disease, 51; misconduct and debauchery, 216.

Moral Causes.—Domestic distress, 392; reverses of fortune, 150; ambition, 139; disappointed love, 114; fright, 124; unknown causes, 1576.

The influence of hereditary predisposition is strongly shown by the preceding table. The number of patients, so situated, amounts to an eleventh of the whole number of admissions, viz. 8272. The author very properly alludes to the great impropriety of marriages in certain families; but it is very doubtful whether most people will be willing to adopt his advice, "les medecins seuls peuvent etre consultés avec avantage dans ces sortes de cas."

Dr. Belhomme directs the attention of his readers particularly to the marked influence of the uterine functions, as one of the most frequent causes of insanity among females. The above table shows that not fewer than 982 cases are attributable either to the efforts of menstruation, the suppression of the catamenia, their cessation, or to pregnancy, the sequelæ of parturition, suckling, &c., or, lastly, to hysteria and other nervous affections, which are, more or less, obviously connected with the state of the uterus.

We shall now proceed to state the result of M. Desportes' inquiries as to the most frequent causes of death among insane patients.

1st Series, 1825–6–7, out of 1246 deaths,
253 were caused by organic disease of the encephalon,
395 by organic disease of the thoracic viscera,
445 by organic disease of the abdominal viscera,
188 by cachéctic diseases.
2d Series, 1828–9–30, out of 1200 deaths,
237 were caused by diseases of the encephalon,

390 by diseases of the thoracic viscera,
393 by diseases of the abdominal viscera,
119 by cachectic diseases.

3d Series, 1831–2–3, out of 1408 deaths,
270 were caused by diseases of the encephalon,
468 by diseases of the thoracic viscera,
485 by diseases of the abdominal viscera,
158 by cachectic diseases.

Hence there was a total of 760 deaths from encephalic disease, 1258 from thoracic, 1322 from abdominal, and 385 from cachectic disease.

It is, however, more than probable that, in very many of the cases arranged under the thoracic and abdominal sections, there was co-existent cerebral disease—the cause of the insanity, although not of the fatal termination. The influence, which disease of other cavities has frequently on the state of the cerebral functions, is strikingly exemplified in many cases of insanity. M. Belhomme alludes to several cases in illustration of this remark, and more particularly to that of a phthisical patient, in whom the paroxysms of madness regularly alternated with the free flow of the purulent secretion, or its suppression.—*Ibid.*

COMPARATIVE VIEW OF THE STATISTICAL REPORTS

From the Hospice at Charenton, the Lunatic Asylum at Rouen, and the Tables furnished by M. Desportes from the Metropolitan Hospitals.

The report from the establishment at Charenton embraces a period of eight years; that from Rouen of ten years; and that of M. Desportes, as already stated, of nine years.

In all the three establishments the admissions were more numerous during the hot than during the cold seasons. The number of female lunatics exceeds that of the male at the Salpetriere; but is inferior at the Charenton and Rouen establishments.

In all, the age of the greatest number is from thirty to forty years. At Charenton the number of the milliners and seamstresses is very large, as already mentioned to be the case at the Salpetriere.

In the Charenton, and also in the Rouen establishments, the number of single women is very large. At the former, bachelors are also very numerous. Perhaps the reason of this is, that a great many soldiers are admitted.

As to the causes of mental derangement, M. Esquirol, the physician of Charenton, states that, in one-fourth of the cases there, hereditary predisposition can be clearly traced.

In M. Desportes' report, the influence of this state is not reckoned so high.

In closing his resumé, M. Belhomme alludes to the growing frequency of insanity in France, if we may judge from the increase of admissions into the public lunatic establishments. Perhaps this is owing, partly at least, to the circumstance of families concealing the infirmity in any of their members less than formerly; but it cannot be doubted that there has been a positive increase in the malady during the last half century. We need not repeat, that the frequent political changes and public excitements have contributed not a little to this melancholy fact. It is gratifying, however, to be assured at the same time that, if the malady is increasing, the success in the treatment has of late years been decidedly greater than in former years. The improvements which have been effected in the various establishments throughout the kingdom, and the greater attention in respect both of dietetic and of therapeutic measures, have done much for this most desirable end. One of the most valuable of all the improvements is decidedly the practice of employing the insane in some regular occupation, whenever they are capable of it.

M. Belhomme says, "A very efficacious means to effect an improvement in the mental state of the insane, is to engage them in some regular occupation. Dr. Ellis, physician to the asylum at Hanwell, which contains between four hundred and five hundred inmates, has for a number of years employed his patients in the duties of the kitchen, wash-house, garden, &c. Many of the outworks of the establishments have been built by them, under the superintendence of a master."

M. Desportes has followed this example with great benefit in the Parisian hospices. By the aid of the patients alone, he has had large workshops erected, and there the inmates are constantly occupied in some light and useful occupation.—*Journal des Connaissances Medicales*, from *Med. Chir. Rev.*

PATHOLOGY AND THERAPEUTICS.

DR. GRAVES ON PHLEGMASIA DOLENS.

Let me now direct your attention to the case of Rebecca Howard, who came into hospital on the first of this month, eight days after her accouchement, with painful swelling of both lower extremities. From the history of her case it appears, that three or four days after her confinement, she got severe pain about the heel and inner ankle, accompanied by swelling, which, commencing about the same situation, extended rapidly up the thigh as far as the groin. A similar swelling appeared likewise in the other limb, but instead of commencing below, it appeared first in the upper third of the thigh, and afterwards spread downwards, attended with violent pain, apparently in the course of the great sciatic nerve. Along the course of the veins a number of hard cords, extremely tender to the touch, could be distinctly felt; the lymphatics, though somewhat tender also, did not seem to be so much engaged, and there was no inflammation of the glands of the groin.

Here we had a case of phlegmasia dolens, or in other words, painful inflammatory œdema of the lower extremities, involving the skin, subcutaneous cellular tissue, veins, and lymphatics, more or less distinctly. I have before stated to you my opinion, that this affection does not necessarily depend on phlebitis; on the contrary, I think that in the majority of cases the disease commences in the subcutaneous cellular tissue, and afterwards extends to the veins and lymphatics. Observe the course of the inflammation in both limbs. In one it commences in the vicinity of the inner ankle, and extends up the thigh; in the other it is first observed in the upper part of the thigh, and spreads downwards. Now, where œdema is the consequence of phlebitis, or where it is artificially produced by tying or compressing one of the large venous trunks, it is always first observed in the lower part of the limb. You perceive, then, that those who explain the occurrence of phlegmasia dolens by referring it exclusively to phlebitis, are not able to account for it as commencing in the thigh and spreading downwards. But how much easier is the explanation, if we look upon it as a peculiar inflammation of the subcutaneous cellular membrane of the limb, involving in its progress to a greater or lesser extent, the veins and lymphatics, and sometimes extending to the joints. From this view of the pathology of phlegmasia dolens, you can understand why the upper part of the thigh may become primarily affected, and that effusion may take place above before it occurs below.

So far with respect to the pathology of the diseases: now with regard to treatment. In attempting to remove this inflammation, we were obliged to keep clear of any measures calculated to increase constitutional debility. The woman, though young, was of a delicate constitution; and there is this peculiar difficulty in the treatment of diseases after parturition, that they occur at a time when the patient has been more or less debilitated by the efforts of labour and its consequences. Our object, therefore, was to reduce the local inflammation, at the same time that we endeavoured to support the woman's strength by a light and nutritious, but not heating, diet. We commenced with the application of leeches, to the number of ten, along the inside of each limb; these we repeated to the same amount on the following day. In the application of leeches in cases of this kind, you must be guided by the circumstances of pain, tension, and swelling; these are sometimes greater in one portion of the limb than in another, most frequently in the course of the veins; but you should always take care to have them applied over those spots in which the inflammatory process seems to exist in greatest intensity. Our next step was to open her bowels by means of purgative injections, to be repeated as occasion required. In addition to this, I directed the limb to be gently rubbed with an ointment composed of one ounce of mercurial ointment, two ounces of lard, and three drachms of extract of belladonna. I have already dwelt so often on the local, antiphlogistic, and narcotic effects of this composition, that it is unnecessary for me to say any thing of it at present.

With respect to internal remedies, I ordered her to take five grains of Plummer's pill every night and morning; but as this produced griping and a tendency to diarrhœa, we were obliged to change it for hydrarg. c. cretâ, with Dover's powder. On the 24th (the fifth day of her treatment) her mouth became affected, and the pain along the sciatic nerve, as well as the general soreness of both extremities, decreased. I forgot to observe, that from the commencement we had given opiates freely; indeed, this was one of the principal parts of our treatment. She first took the liquor of the muriate of morphia, in doses of twenty drops, three times a day; this we exchanged for opiate injections, when her bowels became irritable under the use of Plummer's pill. On the 24th there was a considerable improvement in her symptoms, as I have already stated; but she was very weak; there was still considerable soreness of the extremities, and she complained of pain and tenderness in the right groin, showing that the lymphatics as well as the veins were engaged. I ordered the opiate enema to be repeated, and allowed her the free use of chicken-broth, rice, and a small quantity of wine. On the 25th she was directed to take a pill containing half a grain of opium every third hour. Next day the report states that she finds herself much better, that her bowels are quite natural, that she feels no pain in the lower extremities, except when pressed or moved, and that she has regained the power of her limbs. Two days afterwards she was able to stand, and at present she is so far recovered that I intend to dismiss her to-morrow.

The treatment of cases of this description involves some very curious and important considerations. With the exception of leeching, the treatment which we employed in this case cannot be called antiphlogistic; for throughout the whole course of the disease we gave opium freely, allowed her a nutritious diet, and after the first four or five days the use of wine. This shows that, in diseases called inflammatory, no general rule of treatment can be laid down, and that our practice must vary in the most remarkable manner, according to circumstances. Had I treated this inflammation by leeching, low diet, purgatives, and antimonials, it is very probable she would have sunk. But while we were endeavouring to subdue local inflammation by leeching and mercurial ointment, we supported the constitution by a proper diet, nourishing but not heating, and afterwards by the use of wine. At the same time we gave opium in free and repeated doses, with the view of diminishing pain and irritation, and procuring sleep—a most important matter in the treatment of all acute affections combined with irritability. We also gave mercury internally, because it has been found extremely valuable in such cases, when given rather as an alterative than with the view of rapidly and violently affecting the system. Under this plan of treatment her convalescence has been very rapid. It is a plan abundantly simple, but one which I can recommend to you with confidence.

With respect to the after-treatment of this case, I have merely to observe, that as soon as the hyper-sensibility of the limbs became diminished, I ordered them to be rubbed diligently twice a day with warm olive oil. How this acts I cannot distinctly say; but it appears to diminish tension, to promote absorption, and to increase the pliability of the limbs. Latterly we have given up this, and had recourse to dry friction and bandages. At present she is taking, three times a day, a mild tonic draught, composed of tincture of orange peel, half a drachm; tincture of hops, twenty minims; carbonate of soda, five grains; water, an ounce.—*Med. Gazette.*

OBSERVATIONS ON THE USE OF CERTAIN REMEDIES IN TYPHOUS FEVER, AND ITS COMPLICATIONS.

By Alfred Hudson, M.B. T.C.D. Physician to the Navan Fever Hospital.

The pathology and the treatment of typhus stand the best chance of being enriched, at present, from the "seven millions." The "finest peasantry on the earth" are the victims that typhus rejoices in, and their physicians enjoy ample opportunities of observation.

We refer to the paper of Dr. Hudson, principally for the sake of ascertaining the results of his experiments with remedies exhibited in particular forms of typhus, or for particular symptoms of it. The extracts therefore must not be expected to display any necessary connexion.

A. *Treatment of Fever.* "I have been disposed to look for its indications to the condition of the viscera, and those symptoms which may daily arise, and not to the adoption of any routine system. I believe it is better to do too little than too much, and I therefore abstain from all hazardous modes of evacuation, once the disease has become established; such I conceive to be *bleeding*, *purging*, and *sweating*. If the type of the case be pure continued fever, I usually content myself with ordering the diaphoretic mixture of the hospital, consisting of equal parts of camphor mixture and aqua ammoniæ acetatis, with an occasional small dose of calomel, reserving all more active measures for such complications as may arise. Of these, the most frequent is the *gastric*. In more than half the cases of synochus, the prominent symptoms were those of gastrite, and the relief afforded by leeching or cupping the epigastrium was constant and remarkable. In many cases, crisis followed immediately; in all, the patients expressed themselves relieved from prostration, weight, tightness, and similar feelings. As regards prostration in particular, my experience leads me to consider leeches, indicated by its existence in the early periods of fever, as certainly as is the necessity for wine by the same symptom in its advanced stage."

B. *Headache and Watchfulness.* "In those cases in which headache and watchfulness are complained of, I am in the habit of adding opium to the diaphoretic mixture, in the proportion of twenty-four-drops of the acetous tincture to eight ounces; and I have contantly found all the good effect described by Fordyce to follow this medicne, (3d Dissertation, p. 236.)"

C. *Catarrh in Fever.* "Another very frequent and most serious complication of the continued fever of this country, is catarrh. As I have already stated, all our fatal cases of synochus suffered from it, and in many others it was with difficulty subdued. Antiphlogistic treatment seemed to have little power over it; when once it was established, it ran into the secreting stage, and then the patient's only chance was derived from a liberal supply of wine and nourishment, and the exhibition of the stimulating expectorant medicines; of these, the decoction of polygala, with carbonate of ammonia, was commonly given; and in very severe cases, a bolus of carbonate of ammonia, camphor, and musk, was found to be a most efficient remedy. In some instances, especially in old persons, I found warm punch of eminent service, when wine seemed to have lost power. I do not substitute it for wine in any instance; and these are the only cases in which I have seen any benefit from conjoining it; but here it produces sudden and powerful effects when wine has failed, giving force to the cough, and causing copious expectoration, restoring the warmth and natural colour of the surface, &c."

D. *Stimulation in Fever.* In the "*general* management of a case of severe continued fever, it is usually found necessary to change gradually from the expectant to a stimulating mode of treatment. I am in the habit of commencing the change (as soon as there is any appearance of the prostration of the advanced stage) by adding carbonate, or aromatic spirits of ammonia, to the diaphoretic mixture, and, as occasion requires, modifying this still farther by withdrawing the acetate of ammonia, and adding serpentaria, nitrous æther, &c., as may be indicated by the symptoms. As a general rule, also, I commence the exhibition of wine on the patient's first complaint of weakness, if the fever has advanced beyond the tenth day. I usually begin by ordering four ounces in the twenty-four hours, and increase this gradually, as may be necessary, afterwards withdrawing it in the same manner; the daily allowance seldom exceeded ten ounces; in some cases it rose to sixteen, and in a few to twenty-four ounces. The total amount of wine consumed in the two years was 267 bottles."

u. *Treatment of Gastro-enterite and Diarrhœa.* "Gastro-enterite occurred very seldom in the course of the fever. We had not in all more than twenty cases of diarrhœa, which may be attributed, I think, to several causes: 1st. The practice of leeching the epigastrium early in the disease. 2d. Abstaining almost entirely from purgatives, and trusting to enemata for freeing the bowels; and perhaps to my seldom giving porter as a stimulant, as I found it so apt to produce purging, that I almost entirely relinquished its use.

In the instances in which diarrhœa occurred early, it yielded to the application of leeches over the cæcum, and small doses of mercury with chalk, and Dover's powder, with mucilaginous drinks. In the more advanced period, a blister to the abdomen, and a mixture of port wine and mist. cretæ succeeded very well. In some of the fatal cases, diarrhœa came on with sweating, exemplifying Baglivi's aphorism, 'Si eadem tempore in acutis et gravibus morbis, duæ crisis, sudor scilicet et alvi fluxus superveniant cum pauco levamine symptomatum, fere omnes moriuntur ut sæpe vide.'—*Praxeos Medicæ*, lib. i."

v. *Chloride of Soda in Typhoid Fever.* "The general treatment and complications of typhoid fever differ materially from the preceding. As regards the former, I have found, in some instances, bad effects from even small bleedings, and should in most instances, if the typhoid type were fully ascertained, prefer relieving local congestions by blisters alone, or at most, by a very small number of leeches. As a routine practice, I think the solution of chloride of soda is to be preferred to any other, provided that it be given as soon as possible after the type of the fever is known, which in many cases means, of course, as soon as the fever has set in. I cannot say that I have seen such good effect from its use in more advanced stages, though I have prescribed it in a large number of such, and still do so; not, however, to the exclusion of any one of our tried and approved remedies. But I have noted forty-seven cases of typhoid fever in which I commenced its use as soon as the patient was admitted, or the type of the fever was evidenced by the appearance of petechiæ, &c., and in every instance with the best effect, this being, in many cases, the only medicine given; the dose was from ten to fifteen drops. In some of these cases, the effect of the chloride was evidenced by the change of colour, and diminution in number of the petechiæ, 'taches rosées,' within twenty-four hours, showing, I think, that its action is exerted directly upon the blood, and not as a stimulant of the nervous system, as a late writer in the Dublin Journal seems (erroneously surely) to have inferred from Dr. Graves's paper on this subject.* For myself, while my limited experience leads me to place the fullest confidence in the *chemical* effects of this medicine, given *early*, I have not the least reason to attribute any stimulant powers, nor indeed any good effect whatever, to it in that stage of prostration and adynamia, which Dr. Graves has so graphically described, and in which he considers the chloride a remedy worthy of confidence."

e. *Treatment of Delirium.* "In the mildest forms, a blister applied to the neck, and small doses of opium, generally sufficed to remove it: but we had many cases in which these measures were quite insufficient; in some of them wine was found to be the best soporific. In six cases I tried Dr. Graves's mode of giving opium, viz. in combination with tartar emetic. In one, a case of furious delirium, this treatment, as well as every other, failed: in the others, and in numerous cases since the period comprised in this report, it succeeded admirably. It seems best adapted to that restless kind of delirium resembling delirium tremens, in which the patient cannot be restrained from attempting to leave his bed, and walk about the ward; when every muscle is tremulous, the eye red from want of sleep, the tongue dry, and the patient presenting that kind of spurious excitement which might induce the attendant (injudiciously, no doubt,) to order the local abstraction of blood, by leeching the temples or opening the temporal artery. I could here give reports from my note book of several cases thus treated, but that I consider it would be rendering tedious a paper already too long. In prescribing this medicine, I find it advisable to use great caution in two ways: 1st. Not to give it *after* it has produced sleep. 2d. To follow it up by the prompt and frequent exhibition of wine, and such nourishment or cordials as the more or less advanced stage of the disease, and debility of the patient may require; as it seems to me that there is increased risk of the patient sinking, unless timely supported after sleep thus induced."

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* "Dr. Mateer's Statistics of Fever, Dub. Med. Jour. No. 28. Dr. Graves's paper, read before the British Association, August, 1835. Dublin Journal, No. 22."

H. *Subsultus and Hiccup.* Musk exerted most influence in controlling them.

I. *Hysteria*, frequent during convalescence, always yielded to large doses of assafœtida. In one case in which it resembled mania, a full dose of opium was of the greatest benefit.

J. *Tartar Emetic in "Indolent Pneumonia."* Dr. Hudson makes some remarks on typhoid pneumonia, but they need not detain us. He also directs attention to "an indolent form of inflammation of the lung," independent of typhus, remarkable, in his opinion, for the rapidity with which the passive congestion is resolved by tartar emetic, when mercury has failed. He cites the following as a very illustrative case.

Case. Dr. H. was called in consultation with another physician, in July last, to see a gentleman who had, a month before, suffered an attack of pneumonia. He had been actively treated at the outset by bleeding, blistering, and calomel, and had for some time appeared to amend gradually. For near a week, however, he had been sliding back into the same state as at first. He had cough, very considerable dyspnœa, bloody sputa, and complained of a feeling of weight and oppression in the right side. Here the signs were a general feebleness of respiration, amounting, in the lower portion, to almost perfect nullity, with dulness on percussion, and increased resonance of voice over the same portion, but *not a trace of crepitus*: respiration was puerile over the left lung. His mouth was still sore from calomel, so that its farther exhibition was out of the question; and it was agreed that he should be treated by repeated applications of leeches, and cupping-glasses to the side, and tartar emetic, in doses of a grain every third hour. After the first dose, he had the most perfect tolerance of this medicine for a week. In three days the commencement of resolution was indicated by a fine crepitus in the affected part: this gradually became more distinct for a few days, then was mixed with respiratory murmur, which by degrees became pure, until at the end of a fortnight resolution was perfected.—*Dublin Journal, July*, 1837.

TOXICOLOGY.

EXPERIMENTS ON THE EFFECTS OF THE HYDRATED PEROXYDE OF IRON AS AN ANTIDOTE TO ARSENIOUS ACID.

By Dr. Von Specz, Professor of Chemistry in the Theresian Academy of Vienna.*

In the year 1834, as our readers are aware, Dr. R. W. Bunsen and Dr. A. A. Berthold published a small work at Göttingen, on the use of hydrated peroxyde of iron as an antidote to arsenic, in which they claimed for this remedy all the properties of a true specific. With the view of testing the accuracy of their results, Dr. Von Specz prepared a large quantity of the hydrated peroxyde of iron, and instituted a series of experiments with it, on animals.

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* British and Foreign Medical Review.

Experiment 1. On the 5th of October, 1834, at ten o'clock in the forenoon, twelve grains of white arsenic, mixed with a portion of boiled meat, was administered to a cat six months old. At twelve, retching and vomiting commenced. An attempt was made to administer the antidote mixed with water, by means of a tin funnel, but the animal was so extremely restive, that no more than a drachm of the hydrated peroxyde could be given. Death occurred about one o'clock.

Experiment 2. On the 15th of June, 1835, at ten o'clock in the forenoon, a scruple of the white oxyde of arsenic was given in some sausage to a dog six months old. Half an hour afterwards, Dr. Von Specz attempted to introduce the antidote, by means of a syringe furnished with an elastic tube. The dog, however, bit the tube, and was otherwise so unmanageable, that scarcely any could be administered. He died at half-past twelve.

Dr. Von Specz finding that the hydrated peroxyde of iron could not be given in a sufficient dose in this way, made the following change in the mode of exhibition.

Experiment 3. On the 28th of October, 1835, at ten o'clock in the forenoon, a drachm of finely powdered arsenic was administered to a mastiff six months old, which had been sparingly fed the day before. About five minutes afterwards, an ounce of the dry hydrated peroxyde of iron, finely powdered, and mixed with a sufficient quantity of fried liver pudding, was laid before him. He ate the whole, and afterwards drank about three ounces of milk. About eleven o'clock, he had some fluid evacuations from the bowels, but still appeared lively. About three o'clock P. M. he looked dejected, went to his bed, and lay there quietly; during the night he had five fluid evacuations. On the 29th, he looked dejected, did not stir from his bed, and neither ate nor drank. On the 30th he ate a little meat, drank about six ounces of milk, and returned to his bed. On the morning of the 1st of November, he was quite lively, and ate every thing that was offered to him.

Experiment 4. On the 10th of December, 1835, at ten o'clock in the forenoon, a drachm of finely powdered arsenic was given in some pudding to a bitch, twelve months old. Five minutes afterwards, an ounce of the antidote was given, mixed with liver pudding, the whole of which was devoured by the animal. At eleven o'clock she went to her bed, appeared shy and timid, and refused to eat. She remained quietly in her bed the whole night, without vomiting or purging. On the morning of the 11th she had three fluid evacuations from the bowels, and did not appear to be ill; on the 12th she was running about as usual.

The foregoing mode of exhibiting the antidote to animals may be employed until vomiting commences; after this occurrence, it must be administered by means of a syringe.

As one sixth of the quantity of arsenic administered in Experiments 3 and 4, is more than sufficient to kill a dog, Dr. Von Specz looks upon the hydrated peroxyde of iron as a true specific, and thinks that its failure in any given case is to be attributed to its being employed too late, or given in too small a quantity. In order to ensure the giving of a sufficient dose, ten times the quantity of hydrated peroxyde of iron must be administered; but a much larger quantity may be safely given, as this remedy does not exercise any deleterious effect on the animal economy. In order to obtain the remedy in a state of purity, and free from any admixture of copper, he recommends the precipitation of the iron by ammonia, and states that this preparation when properly made, and preserved in bottles with good glass stoppers, will retain its virtues for a very considerable time. The following is the mode of exhibition which he recommends in cases of poisoning by arsenic.—℞. Olei Amygdal. dulcis, Pulv. Gummi Arabici, Pulv. Sacchari Albi *aa* ℥ij. tere simul et affunde, sensim terendo, Aquæ destillatæ ℥xv.; Hydratis Ferrici ℥iij; of this mixture, previously well shaken, a dessert-spoonful is to be given every three minutes.

Dr. Von Specz resumed his investigations the following year, but instead of the pure hydrated peroxyde, he employed substances in which it is known to exist in considerable quantity, and which require no previous preparation, namely, rust of iron, and hæmatite (red iron ore.)

Experiment 1. On the 16th of January, 1836, at ten o'clock in the forenoon, a drachm of finely pulverized arsenic, mixed with about an ounce of fried liver pudding, was given to a dog twelve months old. Immediately afterwards, a mixture of two ounces of hæmatite with seven ounces of liver pudding was offered to him, the whole of which he devoured, and then drank a small quantity of milk. Forty minutes afterwards, he was attacked with violent retching; the anterior extremities were extended spasmodically forwards, and the posterior drawn backwards, as is usual in cases of poisoning from arsenic; he also had severe vomiting, and convulsive spasms of the abdominal muscles. At eleven o'clock he went to his bed and was peevish; the retching continued during the afternoon, and he had five dark-coloured evacuations from the bowels. On the 17th of January, he remained the whole day in his bed, refused to eat or drink, and had six dark-coloured evacuations. On the 18th he appeared quite lively, sprang to meet the servant, and ate and drank with much desire.

Experiment 2. On the 19th of March, 1836, at eleven o'clock in the forenoon, a drachm of finely powdered arsenic, mixed with three-quarters of an ounce of liver pudding, was given to a dog four months old, and immediately afterwards an ounce and a half of rust of iron mixed with six ounces of liver pudding. The animal ate only three fourths of the antidote, and then drank a small quantity of milk. At half pas eleven he vomited, but still appeared lively; at one o'clock he had a green evacuation from the bowels. During the afternoon he had five alvine evacuations and frequent retching, but no vomiting. In the evening he went to his bed, and remained there quietly during the night; on the morning of the 20th, he had several dark brown fluid evacuations, but was in other respects lively, had a good appetite, ate bread, and did not exhibit the slightest trace of illness.

Experiment 3. On the 19th of March, 1836, at two o'clock in the afternoon, a drachm of finely powdered arsenic, which had been previously dissolved in two ounces of hot water, was poured down the throat of a dog four months old, while the solution was still warm, by means of a tin funnel, and about ten minutes afterwards, an ounce and a half of rust of iron, mixed with a quantity of milk, was administered in the same way. Five minutes afterwards, the dog was attacked with convulsions and retching, and dropt down as if dead. After fifteen minutes he got up, crawled into a corner, and vomited violently. During the night he had several dark-coloured alvine evacuations. On the 20th he was sullen, and refused to eat; on the 21st he was fresh and lively, and greedily ate some bread offered to him.

Experiment 4. On the 24th of March, 1836, at nine o'clock in the forenoon, a drachm of arsenic, mixed with an ounce of liver pudding, was given to a dog four months old, and then an ounce and a half of hæmatite, mixed with five ounces of liver pudding: the animal devoured the whole. Forty minutes afterwards, he was attacked with retching and convulsions followed by severe vomiting; as soon as the retching ceased, he ate up again what had been ejected from the stomach. At twelve o'clock he began to vomit again, became dejected, and went to his bed; he whined, retched continually, and his jaws were covered with a whitish foam. During the afternoon he had several alvine evacuations of a reddish colour, trembled, and was affected with constant retching and convulsive twitches. In the evening he was more tranquil. On the 25th he was quite lively, sprang to meet us, and ate with a good appetite.

Experiment 5. On the 24th of March, 1836, at eleven o'clock in the forenoon, a drachm of finely pulverized arsenic, mixed with an ounce of liver pudding, was given to a dog three months old, and immediately afterwards an ounce and a half of lapis hæmatites mixed with five ounces of liver pudding; the animal consumed only two thirds of the antidote. Twenty minutes afterwards he began to vomit, and at the same time had an evacuation from the bowels: he was then attacked with retching, vomiting, and convulsions, which lasted until one o'clock;

during this time he vomited six times. At two o'clock he became dejected, shivered, and sought his bed; the retching was extremely severe, and his jaws were covered with foam. These symptoms disappeared about eight o'clock in the evening. On the 25th, he remained in his bed; about ten o'clock in the forenoon, he vomited twice a white frothy fluid; at eleven, he had some fluid evacuations from the bowels. On the 26th, he had several greenish brown evacuations, but appeared lively and ate with appetite.

From these experiments Dr. Von Specz is led to conclude, that rust of iron and hæmatite, although they do not prevent all the bad effects of arsenic on the system, may, in defect of the hydrated peroxyde of iron, be employed as antidotes to that poison. To the hydrated peroxyde, which is capable of neutralizing all the deleterious properties of the poison, he assigns the first rank as an antidote to arsenious acid, next to this stands rust of iron, and then, *sed longo intervallo*, hæmatite, which, in consequence of its slow operation, may be used without any beneficial result where the poison is exercising a very powerful action on the system. Experiments 1, 4, and 5, of the second series, show distinctly the predominant influence of arsenic on the system, although the hæmatite was administered immediately after the poison, and before its specific effects could be produced. The animals, it is true, did not die, but the counteracting powers of the antidote were not manifested until nearly three hours after its exhibition. These objections do not apply with any thing like the same force to rust of iron, which Dr. Von Specz thinks may be advantageously employed as an antidote in defect of the hydrated peroxyde. Its great efficacy as an antidote is shown in Experiments 2 and 3 of the second series. The remarkable effects of the arsenic in Experiment 3 are to be attributed to the mode of administration, for Dr. Von Specz has repeatedly found that the poison operates much more rapidly when introduced into the stomach into a state of solution. A drachm of arsenic in powder does not produce its deadly effects on the system in less than six or eight hours, while the same quantity dissolved in warm water destroys life in a much shorter time. Rust of iron has also the additional advantage, that it can always be procured with facility.

Med. Jahrbücher des k. k. O. St. xix Band. 4 Stück. xx Band. 1 Stück. 1836.

SURGERY.

DISLOCATION, WITH EXPOSURE, OF THE ELBOW JOINT.

BY JOHN H. DAYTON (SAG HARBOR, N. Y.)

(In a Letter addressed to the Editor.)

I send you a brief account of a case which, so far as I recollect, is unique.

On the 7th September last, Charles Mott, æt. 12 years, fell from a horse, dislocating the elbow, 2 o'clock, P. M. When first seen, presented the end of the radius, and the olecranon process, which had passed round the condyle of the humerus, protruding through a transverse wound on the inside of the arm, one inch above the bend. The artery, veins, ligaments, and in fact the whole of the soft parts except the nerve, completely torn across; the synovia escaping from the wound, which was nearly two inches in length, and the fore-arm flexed backward upon the arm. Had bled as near as could judge ℔iss. With the assistance of my friend, Dr. Lord, the dislocation was easily reduced, the soft parts retained together by adhesive strips, and the arm kept in a semi-flexed position by a splint and bandage. After placing him in bed, with warm flannels about the limb, the pulse 50 and weak, ordered a weak sling. At 9 o'clock,

P. M., pulse 60. Slight oozing of blood, some pain; slacked the bandage above the elbow.—Tinct. opii ♏ xv.

Sept. 8th. 9 o'clock, A. M., slight swelling, pain, thirst, tongue white, numbness of the arm; pulse 70; sulphat magnesia ʒij. 9 o'clock, P. M., more swelling and pain; two evacuations. Bandage loosened in its whole length, arm extended to the best position in expectation of anchylosis.—Tinc. opii ♏ xv.

Sept. 9th. Swelling increases; pain, numbness, thirst as before; pulse 85. Bandage slacked.—Lemonade.

Sept. 10th. Free evacuation of the bowels. Slept well; pulse 95; otherwise as before.

Sept. 11th. Less pain, oozing of pus, pulse 90. Doing well.

Sept. 12th. Removed the dressing. Two-thirds of the external wound closed by adhesion, dressed with dry lint, free flow of pus; pulse reduced to 70, inflammation much abated.

Sept. 14th. Redness, pain, heat, and swelling, gradually subsiding. Pulse natural, oozing of a thin watery fluid, dressed the wound with salve.—℞ Acet. Plumb.℥ij; Sulph. Soda ℥iiij; Cera Flava, Axunge āā ℔j.

Sept. 23d. General appearance the same.

Sept. 26th. Some increase of heat, redness, and tumor; slight irritative fever; hit it severely yesterday.—Six leeches to the part, sulphat magnesia ʒij.

From this to the present he has been constantly, though slowly, gaining. There is flexion and extension to the extent of five or six inches, but very little if any rotation. The arm is somewhat less than the other, and entirely without pulsation at the wrist. What appears singular to me in the case is, that both bones protruded through the wound on the inside of the arm without fracture of the olecranon.

OBSERVATIONS ON EXTRACTION AND DISPLACEMENT OF THE CATARACT.

By J. A. Robertson, M. D., Surgeon to the Eye Dispensary of Edinburgh.

This is a very excellent statistical and practical paper, and, as far as it goes, places in a clear light the relative success resulting from the different modes of performing the operation for cataract. Dr. R. passes in review the advantages and disadvantages of—1. *Division*, or breaking down the lens in situ; 2. *Extraction*; 3. *Displacement*; including *Depression* and *Reclination*; in the former process, the lens being pushed perpendicularly downwards; in the latter, the lens being imbedded in the vitreous humour, with its anterior surface turned upwards and its upper edge backwards. We can only find room to give some of the numerical results deduced by Dr. R. from the collation of numerous cases, and the conclusions which he has found himself warranted to draw from the whole facts and reasonings.

Out of 1307 operations by *Extraction*, there were 397 failures, or 30 per cent. (nearly). Out of 5729 operations by *Displacement*, there were 1004 failures, or 17 per cent. (nearly). This last series includes a great number of operations by *Depression* as well as *Reclination*; and Dr. R. remarks, that inasmuch as the latter operation is preferable to the former, so ought the results to be much more favourable if all the cases had been operated on by Reclination. The preceding results are collected from the writings of others. Dr. Robertson subjoins a statement of 179 cases of hard cataract, without any complication, operated on by himself. The results were as follows:

	Cases.	Cured.	Relieved.	Failed.
Extraction	64	32	14	18
Reclination, . .	115	94	10	11;

being a proportion of failures by Extraction of 28 per cent. (nearly), and by Reclination of only 9 per cent. (nearly).

The following are the conclusions drawn by Dr. R.:

"1. That the safest mode of operating when the cataract is soft is by breaking it down, and thereby effecting its absorption.

"2. That in all operations in which the needle is used, that instrument ought to be entered through the sclerotic, and not through the cornea.

"3. That in cases of hard cataract, complicated with the various diseases of the eye and its appendages, mentioned above, the needle ought to be employed, the mode of operating being adapted to each individual case.

"4. That hard cataract without such complications may be effectually removed by the operations of *Extraction* or *Displacement*.

"5. That the operation of *Depression* is impracticable, and that attempts to perform it will be productive of the most injurious results.

"6. That many of the accidents which may occur during the operation of *Extraction* cannot be avoided by any degree of skill or dexterity, and, therefore, form valid objections to the operation.

"7. That the accidents which may occur during the operation of reclination arise from faults on the part of the operator, for as soon as the needle is entered, he has complete command over the eye. They do not, therefore, form valid objections to the operation.

"8. That the resulting success from the operation of *Reclination* is very much greater than that from *Extraction*.

"9. That in cases of failure of the operation by *Reclination*, the eye, in the majority of instances, is not left in so hopeless a condition as when the operation of *Extraction* has failed.

"10. That, in consequence of the comparatively rare occurrence of violent inflammation after *Reclination*, there is infinitely less likelihood, than in cases of *Extraction*, of such depleting measures being required as may prove ruinous to the general health of the patient."—*Edinburgh Journal. April*, 1837.

MISCELLANEOUS.

FOSSIL INFUSORIA.

Extract of a letter from Baron de Humboldt.—"Fossil infusoria have been eaten in Lapland in times of great scarcity. M. Retzius, Professor of Anatomy at Stockholm, has recently written thus to M. Ehrenberg: 'Through the kindness of M. Berzelius I have received some fragments of the siliceous deposit of Franzensbad, sent by you to him. The carapaxes of the fossil infusoria contained in this deposit made me think of a mineral substance, vulgarly called Bergmehl (flour of the mountains), analyzed and described by M. Berzelius in the Annales de Poggendorf for the year 1833. This flour of the mountains contains silex, an animal substance, and the *crénique* acid (*quellen saure*), discovered by this great chemist. The Laplanders mix the Bergmehl, when a famine takes place, with the flour of corn and bark, in order to make bread. They fed in this manner in 1833, in the little district of Degerfors, on the frontiers of Lapland, in the 64th and 65th degrees of latitude. On examining the mountain flour, which is considered by these superstitious people to be a gift from the great spirit of the forests, I have discovered nineteen different forms of infusoria, with siliceous carapaxes, of which I send you drawings. The whole of the mineral is composed of them, and the conjecture which I formed on its analogy with the deposit at Franzensbad, proves to have been well founded. M. Ehrenberg has received the mineral flour from Lapland, and several of the infusoria which it contains are supposed to be still living near Berlin. The infusoria are *eaten* in Degerfors—I do not say that the inhabitants are nourished by them.'"—*Athenæum.*

WHITE RACE OF ATLAS.

M. Guyon, chief surgeon to the African army, writes to M. Dureau de la Malle, that at Bougia there is now living, a woman originally from the interior, supposed to be descended from the white tribe of Mount Aureps. She is at most twenty-six or twenty-eight years of age, of very agreeable physiognomy, blue eyes, fair hair, beautiful teeth, and has a very delicate white skin. She is married to the Imaun of the mosques, Sidi Hamed, by whom she has three children, bearing a strong resemblance to herself. M. Arago observes, that these white people are not so rare in that part of the world as might be supposed, for when he was going from Bougia to Algiers, in 1808, by land, he saw women of all ages in the different villages, who were quite white, had blue eyes and fair hair, but that the nature of his journey did not permit him to stop and ask if they come from any peculiar tribe.—*Ibid.*

OBITUARY.

General Bill of Mortality for London, from Dec. 15, 1835, to Dec. 15, 1836.

Diseases.	
Abscess	110
Age & Debility,	2320
Apoplexy	405
Asthma	853
Cancer	123
Childbirth	194
Cholera	2
Consumption	3138
Constipation of the Bowels	14
Convulsions	1617
Croup	169
Dentition, or Teething	393
Diabetes	1
Diarrhœa	21
Dropsy	847
on the Brain	578
on the Chest	54
Dysentery	7
Epilepsy	24
Erysipelas	75
Fever	354
(Intermittent or Ague)	2
(Scarlet)	261
(Typhus)	59
Fistula	6
Gout	91
Hæmorrhage	33
Heart, diseased	155
Hernia	10
Hooping-cough	311
Hydrophobia	1
Indigestion	10
Inflammation	1481
Bow. & Stom	236
Brain	165
Lungs & Pleura	272
Influenza	5
Insanity	226
Jaundice	35
Jaw, locked	6
Liver, diseased,	346
Measles	404
Miscarriage	16
Mortification	194
Paralysis	164
Rheumatism	32
Scrofula	29
Small-pox	536
Sore Throat and Quinsey	36
Spasm	39
Stone & Gravel	13
Stricture	14
Thrush	93
Tumor	47
Venereal	8
Worms	17
Unknown Causes	1139
Casualties, as under	439
Casualties.	
Drowned	104
Died by Visitation of God	53
Excessive Drinking	18
Found dead	23
Killed by various Accidents	192
Murdered	2
Poisoned	6
Suicides	41

Buried { Males. . . . . 9,202 / Females . . . 9,027 } Total, 18229.

Of the number buried were

Under 2 years of age	4157
2 & under 5 yrs.	1634
5 & under 10	783
10 & under 20	673
20 & under 30	1315
30 & under 40	1651
40 & under 50	1948
50 & under 60	1766
60 & under 70	1849
70 & under 80	1573
80 & under 90	685
90 & under 100	95
107	1

Decrease in the burials reported this year, 1386.

SKETCH OF RASORI.

Rasori, the founder of the present Italian school of medicine, was born at Parma, in 1766, to the chief hospital of which city his father was head apothecary. At the early age of eight, he entered the University of Parma, where he commenced the study of the classics, and afterwards acquired an accurate knowledge of the English, French, German, and Spanish languages.

His attention appears to have been about this time directed to a great variety of subjects, in all of which his proficiency was remarkable. He seemed in particular to have acquired a taste for general literature, which he always retained.

He prosecuted the study of medicine with zeal, and at the age of nineteen was made doctor of medicine by the University of Pisa. His thesis excited a good deal of attention, from the novelty of some of its views, as he introduced the subject of animal heat, and Crawford's theory, which was at that time unknown in Italy.

At the time when Rasori took his degree, surgical knowledge was much neglected at Pisa, and it was usual for the University to send one of its graduates abroad to study surgery, and afterwards to make him professor of that branch of medicine. Rasori was elected for this purpose at the age of twenty, on which he departed for Florence, where he became the friend and pupil of Fontani, Nannoni, and Mascagni. In three years he removed to Pavia, where he remained two years, and enjoyed the friendship of Spallanzani, whom he assisted in his experiments.

At this period the Brunonian doctrines made their appearance in Italy. Rasori studied Brown's work with ardour, and translated it into his own language, arguing at the same time against many of the doctrines which it contained. In 1793 Rasori came to England, where he remained two years, and on his return settled at Milan.

In 1796 Rasori was appointed professor to the University of Pavia, in the room of Scarpa, who refused to take the oath of allegiance to the government of Bonaparte. His opening address was a profound "examination of medical doctrines," and next day he harangued his pupils in the cause of liberty.

After being professor two years, he was called to be secretary to the Minister of the Interior, in which office he showed his usual activity: but he soon found that this was not his vocation, and he obtained leave to return to Pavia, in the capacity of professor of clinical medicine, and chief of the medical directory. After holding this office for three months he was suddenly deprived of it, and replaced by his rival, Moscati.

On leaving his professorship, he was made government-superintendent of the great hospital of Milan and its dependencies; but immediately afterwards he retired with the French army to Genoa, where he remained until its surrender. During the siege a petechial fever raged generally and extensively, and Rasori treated it according to the principles which he had already explained in his clinical lectures at Pavia. He was very successful, and published a history of the disease, in which he gave an account of the doctrine of contra-stimulants, and the employment of large doses of tartar emetic.

After the battle of Marengo he returned to Milan, where he endeavoured to confirm his opinions by a variety of experiments on animals, and to establish the stimulant influence of some remedies, and contra-stimulant power of others.

In 1807, when Rasori's reputation had become established, and strangers began to resort to him, he was allowed by the government to form two clinical wards, one for men and the other for women, each of more than 100 beds, in the great hospital of Milan. It was in these wards that he practically developed his system, and instructed the pupils who afterwards spread his doctrines so widely.

But Rasori did not remain long in private life, for he was soon appointed first physician of the kingdom, which office devolved on him the general direction of matters connected with the public health. At this time the petechial fever, which has been mentioned, was raging not only in the hospitals of Lombardy but also in many stations in which the troops had remained. Rasori was despatched to stop its ravages; and he succeeded in doing so by isolating the affected from the unaffected.

His general services and success in practice were appreciated by the government, which, in 1808, made him professor of clinical medicine to the military hospital for the instruction of medical officers for the army. In this office he gave the most complete satisfaction.

The success of Rasori, however, created him many enemies; and a violent attack on his doctrine of contra-stimulants was published. To this attack Rasori replied in the most open and satisfactory manner, by publishing annual reports of the result of his practice.

On the re-occupation of Lombardy by the Austrians, Rasori lost all his appointments, and fell under the suspicion of government. On a conspiracy being apprehended, he was seized, imprisoned, and kept four years in confinement. During his imprisonment, although his health suffered considerably from intermittent fever, he displayed his wonted activity of mind; he wrote a review of a work on diseases of the spine, translated a work from the German, and began to prepare a large work on inflammation, which he lived to complete. This work is about to be published, and has excited a good deal of expectation.

After his release from prison, Rasori continued to publish interesting tables of the results of his practice, proving the superiority of his own method over that of other physicians. About this time the then Princess of Wales, while travelling in Italy, was taken ill, when Rasori was sent for, and cured her.

It is only necessary to add, that after his release his hospital practice was followed by as many pupils as formerly, and that his general practice was such as his many agreeable qualities were calculated to insure. He died on the 15th of April of this year, aged 71. A colossal statue of him in marble is about to be erected in Milan. Rasori's contra-stimulant system, which at present prevails in Italy, is but a slight modification of Brown's doctrines,* and though it has excited a good deal of attention in its day, is quite destitute of the elements of stability. Some remarks on it will be found in this journal, vol. xviii. p. 247.

[We are indebted, says the *London Medical Gazette*, to the *Gazette Médicale*, for the substance of the preceding account of this distinguished physician.]

DOCTOR PHYSICK.

In the death of Philip Syng Physick, M.D, on the 15th of December, 1837, the profession, of which he was the admitted head, has sustained a heavy, we will not say, irreparable loss. The principles of surgery, his favourite branch, which he long and successfully taught, are now so well understood and so generally practised, that the absence of their promulgator will be less felt than would have been the case after the decease of a bold and even inventive empiric, who, content to act out his own conceptions, cares not to show to what extent they are in harmony with one another, or with the phenomena of living organized bodies.

Doctor Physick died in the seventieth year of his age—leaving behind him a large fortune, the product mainly of his professional labours, a fame as a practitioner unequalled on this continent; heirs to his name, and admiring friends, who are intent on exhibiting his talents and character in the most advantageous relief before the public eye. Was not such a man, or ought he not to have been, happy? If happiness could be found in the externals of wealth, and honour, and fame, and an admiring and grateful community, Philip Syng Physick surely obtained it. But there are other elements which it would be well for him who runs ambition's course to remember are paramount to these—we mean a temperament disposing to cheerfulness, good health, the intimacy of friendship, if not the delights of a domestic circle, tastes sufficiently diversified to allow of the possessor finding at every minute of leisure from the toils of business pleasure in their cultivation by conversation, reading and study; and finally, and above all, the diffused glow of piety animating, sustaining, and impelling amidst the cares and vexations and dark sorrows of life.

How far Dr. Physick was possessed of and enjoyed these gifts and ornaments, it will be the province of his biographers to tell us. Already we find, that the three of his professional friends who have held the most free and confidential intercourse with him, have been selected for this office. Dr. Chapman will, ere long, agreeably to request, deliver his eulogy before the Medical Class of the University of Pennsylvania; Dr. Horner has been appointed to perform a similar duty before the Philosophical Society; and Dr. Randolph, son-in-law of the deceased, before the Philadelphia Medical Society. From materials which will be thus furnished, we hope to be able to make out a portrait, which shall convey some definite idea of the moral and intellectual lineaments of the man, as well as of the skill and attainments of the surgeon and physician. To do this, it is very obvious, although the fact seems to be entirely overlooked in most of the biographies of the time, the painting ought not to be entirely monochromatic.

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* This assertion is inaccurate. For a tolerably full account of the doctrine, we would refer to an article in the 5th vol. of Dr. Chapman's Medical and Physical Journal, by John Bell, M.D.—Ed. Eclect. Journ.

Introductory Lecture, delivered before the Medical Class of the University of Maryland. November, 1837. By Samuel G. Baker, M. D., Professor of Materia Medica and Therapeutics.

Doctor Baker's present production ought to be called an Oration in heroic strain rather than a Lecture in didactic style. Put into alexandrine verse, it might be added to Darwin's 'Loves of the Plants,' unless it should be claimed for ingrafting on the 'Loves of the Triangles.' "The investigating naturalist," as represented by the lecturer, is indeed a wonderful character, who "has found in the most beautiful flowers of the field kind ministers to pain and suffering." "He has hewn its [the earth's] flinty vitals—he has brought to its aid the explosive force of powder to sever its hard substance." "He has found there arrayed in rich associations the various metals, earths and ores. The dull native sulphuret of mercury his magic wand has converted into the beautiful, the admired quicksilver, which, in its application to the arts, has become a dearly precious metal." Then we are told that the maxim 'know thyself' has been singularly acted on, and self-knowledge promoted, by the aid of quicksilver in the manufacture of mirrors. We learn farther, that the 'magic wand' has awakened into being the materials "sleeping in the calm repose of crystallized nature." "By the biddings of his master spirit" the ores of arsenic, silver and copper are made to lay aside the rude garb in which nature has invested them." "His confident spirit has plunged even into the sea:" but let us not be alarmed; he is not drowned. He has lost his wand, it is true,—and now the electric and galvanic *fluids* are added to his *quiver*. We have marked the two words by which the original idea is advanced of a quiver holding imponderable fluids in place of arrows, as heretofore always supposed.

Hitherto all the wonders are done by 'the naturalist,' but now, without any notice of change or transformation, the magic wand is transferred to 'the physician.' In a strain highly figurative, the lecturer allows us to guess that he meant to speak of the daring of that man who first drew blood, with a view to abate the violence of fever.

Doctor Baker is associated with the members of the former, or as we may call it, old Faculty of the University, who, after resigning their chairs, have reorganized themselves, and claim a right to lecture and confer degrees under the government of the 'Regents.' The latter part of his lecture bears on this matter, and, in no very measured or courteous terms, censures the Trustees and their most active medical friends. With these disputes we cannot meddle. For all the parties, individually, we have no other feeling than that of kindness; and in our present strictures on the inflated style displayed in the Introductory of Professor Baker, we have had an eye singly to the correction of an abuse which seems to be on the increase, in place of its yielding, as we had fondly hoped, to the influence of a better taste now inculcated in our seminaries of learning.

Introductory Lecture to the Course of the Institutes of Medicine, delivered in the University of Pennsylvania. November 6th, 1837. By Samuel Jackson, M.D.

This lecture by Dr. Jackson, different from most introductories, displays much thought and research, not of the black letter kind, but into the phenomena of the living body, both in its healthy and morbid state. If fault were found, it would most likely be, that the exposition is more in the aphoristic than in the merely didactic style; and hence a strain on the attention of the reader, and still more on the auditor, which those who wish always to see the idea on the surface may find somewhat irksome. Every student must prefer, however, finding materials before him for profitable thought, to having his fancy tickled by misplaced allegory and poetical prettinesses.

Ardent and persevering as he is in the study of the authors of the day, and in accumulating a large fund of knowledge from his own personal observations, Dr. Jackson renders, we are glad to perceive, justice to the writers of the olden time for their faithful and accurate descriptions of diseases, and of the effects of many of the medicines we now employ.

NEW MEDICAL JOURNAL.

The Medical Examiner: a Journal devoted to Medicine, Surgery, and the Collateral Sciences. Edited by J. B. Biddle, M.D., and M. Clymer, M.D.

To be printed on a large sheet, which will contain sixteen pages, octavo, of double column, and published upon every alternate Wednesday, beginning with the 3d January, 1837. The annual subscription will be three dollars, payable in advance. The office of the Examiner is at No. 230 Spruce street, between Sixth and Seventh.

The plan of the new Journal will be that of the weekly Medical Gazettes of Paris, London, and other European capitals: hence it is proposed that it shall contain accurate and regular clinical reports of the two principal hospitals of Philadelphia, with accounts of interesting cases occurring in other institutions and in private practice; also notices and reviews, and a summary of American and European medical intelligence. "The editorial department of this Journal will be conducted with a zealous and entire devotion to the best interests of the profession. It will be strictly eclectic and impartial in its character, alike free from sectarian bias, and unperverted to the purposes of private griefs."

We will add, for ourselves, to this announcement, an expression of best wishes for the success of our professional brethren who have undertaken the irksome and so generally thankless duty of editorship. If they succeed, and why should they not, in overcoming the various obstacles to regular reports of clinical cases and of clinical lectures, they will be entitled to, and will secure the support of a large body of readers, to whom information of this nature would be peculiarly acceptable.

In our next we shall be able, after a perusal of the first two numbers, to indicate better the distinctive character of the Medical Examiner.

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We have been favoured, by two of our New York friends, with detailed reports (in the Sun and Herald) of the trial of Richard K. Frost for manslaughter, by steaming a person to death after the most approved Thomsonian method. The subject may, perhaps, be noticed in our next.

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The Surgeon's Practical Guide in Dressing, and in the Methodic Application of Bandages. Illustrated by numerous Engravings. By Thomas Cutler, Late Staff-Surgeon in the Belgian Army.

So soon as the numerous engravings required to illustrate the text are ready, this work will appear in the Library. Of its peculiar adaptation to the wants of the great body of the profession in the country, consisting as this does for the most part of general practitioners, we can entertain no doubt. We are almost as sanguine of our receiving their thanks for the increased facilities which we shall furnish them for success in their surgical dressings, and employment of various apparatus.

The suggestion to publish Dr. Cutler's work came from a friend in the interior,* himself of no small skill and practice in surgery.

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* Dr. Hugh M'Guire, of Winchester, Va.

THE ECLECTIC

JOURNAL OF MEDICINE.

VOL. II. FEBRUARY, 1838. No. 4.

ON MAN, AND THE DEVELOPMENT OF HIS FACULTIES.*

M. QUETELET, as most of our readers are probably aware, has distinguished himself by a series of interesting and original memoirs on various branches of statistics. In the volumes now before us, we are presented with a summary of the facts and conclusions which he had previously promulgated; and as we conceive that they merit the serious consideration of all classes of society, and more especially of the members of the medical profession, we propose in the following pages to offer as full an analysis of the work as our limits will permit.

Before the appearance of M. Quetelet's papers, the laws regulating the birth, development, and death of man had been studied, neither as a whole, nor in reference to the mode in which they react on each other. Inquiries more or less complete into some of these laws, results deduced from isolated facts, and theories frequently founded on single observations, constituted almost all the materials of the science of man; and though the influence of age, sex, occupation, climate, and season on the number of births and deaths had been carefully investigated, no attempt had been made on a large scale, to ascertain the laws regulating the increase of the height or weight of man, the development of his powers, the sensibility of his organs, and his other physical faculties. The age at which these faculties attain their *maximum* of energy, that at which they begin to decline, their values in respect to the different epochs of life, the mode in which they are influenced, and the causes by which they are modified, remained undetermined, and little attention had been paid to the study of the progressive development of the moral and intellectual part of man, to the influence exercised over it by the body, or over the latter by the mind.

These remarks do not apply to speculative science, which has long ago discussed most of the questions within its compass, which could be immediately encountered without the numerical appreciation of facts. But it will be found that before M. Quetelet began his investigations, all those anthropological questions which required the aid of the sciences of observation and calculation remained almost, if not altogether unsolved, and that he is undoubtedly the first who has attempted to reduce the various phenomena of the moral and intellectual nature of man to fixed laws, the operations of which may be exactly calculated.

The work before us is divided into four books, the first three containing the facts which the author has collected, and the last, his conclusions. Whatever may be thought of the latter, the former must ever rank as a valuable contribution to vital and moral statistics.

The design of the author may be briefly stated to be, to study in their effects those causes, whether natural or disturbing, which act on the development of man, and to endeavour to ascertain the amount of the influence which they exert, and the manner in which they modify each other.

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* *Sur l'Homme et le Développement de ses Facultés, &c.—On Man and the Development of his Faculties.* By A. QUETELET, Perpetual Secretary of the Royal Academy of Brussels, Corresponding Member of the Institute of France, of the Royal Astronomical Society of London, of the Royal Academies of Berlin, Turin, &c. 2 Vols. 8vo. Paris, 1835. Pp. xii. and 652. Six Plates.

The individual whom M. Quetelet selects for consideration is an imaginary being, invested with the average powers, either of mankind or of a nation, and upon whom all things act with an energy equal to the average of that which they exert on society. In establishing the basis of *social physics*, this imaginary being must be alone considered, no account being taken either of individual cases, or of anomalies, and all inquiry being avoided as to whether or not one or more of his faculties be capable of greater or less development. Suppose, for instance, that we wish to ascertain the disturbing influence of man in modifying his physical power. By means of the dynamometer, we may determine the power of the hands or loins in a large number of individuals of all ages, and the results thus obtained in respect to one country will give two scales of powers, the value of which will be proportioned to the number of observations, and the care with which they have been made. By afterwards comparing scales obtained by the same means, and under the same influences, but at different epochs, it will at once be ascertained whether the amount of power has been diminished or increased by the disturbing influence of man. Farther, we may in the same way ascertain the variations which the different classes of society have undergone.

After having considered man at different epochs, and successively determined the various elements of his physical and moral condition, and the variations which occur in the quantity of the things produced and consumed, in the increase or diminution of his wealth, and in his relations to other nations, we shall be able to ascertain the laws to which he has been subject in different nations from their origin; in other words, we shall be able to follow the course of the centres of gravity of each part of the system, in the same way as the laws relative to man in each nation shall have been ascertained, by grouping the observations made on individuals. In this point of view, nations, in reference to the social system, are what individuals are to nations, both having laws of growth and decay, and both having a more or less extensive part in the disturbances of the system. It is only from a general view of the laws acting upon different nations, that we shall be ultimately enabled to come to any accurate conclusion in reference either to the equilibrium or the movement of the system, for we are still incapable of deciding in which of these states it really is. Daily occurrences satisfactorily prove the existence of internal actions or forces reacting on each other, and we may form conjectures more or less probable respecting the progress of the centre of the system and the direction of the movement; but we may yet find ultimately, that while all the parts move in a progressive or retrogade manner, the centre of the system remains invariably *in equilibrio*.

The numerous difficult problems which must be solved before any satisfactory conclusion on such subjects can be formed, will require the industry of another age at least. But in the meantime, we may ourselves of those materials, which M. Quetelet has with such ability and perseverance collected for the purpose.

We shall divide this paper into three parts. In the *first*, we shall consider the laws regulating the reproduction, in the *second*, those regulating the death, and in the *third*, the height, weight, strength, inspiration, pulse, swiftness, and agility of man at different ages.

I. Reproduction.—It is a curious fact, the cause of which still remains a matter of doubt, that more males than females are annually born. In 14,500,000 observations made in France from 1817 to 1831, the ratio of males to females was found to be as 106.38 to 100, and the proportion of each year was nearly the same. To ascertain whether climate had any influence in producing this result, thirty of the most southern departments were selected, and the proportion found to be 105.95 to 100. The difference of the results, though appreciable, is small, and to render any conclusion satisfactory, it would be necessary to extend the inquiry beyond so narrow a field. Captain Bickes collected 70,000,000 observations in the more important states of Europe, and the following are the results:

States and Provinces.	Proportion of Boys to 100 Girls.
Russia,	108.91
Province of Milan,	107.61
Mecklenburg,	107.07
France,	106.55
Netherlands (Belgium and Holland,)	106.44
Province of Brandenburg and Pomerania,	106.27
Kingdom of the Two Sicilies,	106.18
Austrian Monarchy,	106.10
Silesia and Saxony,	106.05
Prussian states taken as a whole,	105.94
Westphalia and Grand Duchy of the Rhine,	105.86
Kingdom of Wirtemberg,	105.69
Eastern Prussia and Duchy of Posen,	105.66
Kingdom of Bohemia,	105.38
Great Britain,	104.75
Sweden,	104.62
Average of Europe,	106.00

This table, so far as Europe is concerned, militates against the opinion of those travellers who have asserted that a warm climate favours the birth of females. Farther observations, especially in countries approaching the equinoctial line, are required before we can decidedly say that climate has no influence. The following table exhibits some facts which have been ascertained, respecting the proportion of males to females in the births at the Cape of Good Hope :

Years.	Free.—Male.	Female.	Slave.—Male.	Female.
1813,	686	706	188	234
1814,	802	825	230	183
1815,	888	894	221	193
1816,	805	892	325	294
1817,	918	927	487	467
1818,	814	832	516	482
1819,	810	815	506	509
1820,	881	898	463	464
	6604	6789	2936	2826

Thus among the free population, more females were born than males, and that every year, while among the slaves in five of the eight years, the males predominated as they do on the average of the whole. In the year 1816, the proportion of females to males in the births occurring in the free population, was 892 to 805, being the highest of the eight years. In the same year the reverse occurred in the slave population, the males being to the females as 325 to 294, the former predominating more than in any other except one of the years stated.

If we may judge from the Belgium returns, the proportion is influenced by a town or country residence. The proportion of males in the whole births from 1815 to 1824, was in towns, 106.66, and in the country, 106.96 to 100 females; and from 1825 to 1829, 105.29 in towns, and 106.10 in the country. This fact has also been remarked in other countries. The following table, drawn up by Captain Bickes, exhibits the same difference, and besides shows that the proportion in legitimate differs from that observed in illegitimate children :

States and Provinces.	Proportion of boys to 100 girls.—Legitimate.	Illegitimate.
France,	106.69	104.78
Austrian Monarchy,	106.15	104.32
Prussian Monarchy,	106.17	102.89
Sweden,	104 73	103.12
Wirtemberg,	105.97	103.54
Bohemia,	105.65	100.44
Province of Milan,	107.79	102.30
Eastern Prussia and Posen,	105.81	103.60
Brandenburg and Pomerania,	106.65	102.42
Silesia and Saxony,	106.30	103.27
Westphalia and Duchy of the Low Rhine,	106.07	101.55
Average,	106.18	102.93

Towns.	Proportion of boys to 100 girls.—Legitimate.	Illegitimate.
Paris,	103.82	103.42
Amsterdam,	105.00	108.83
Leghorn,	104.68	93.21
Frankfort on the Mayne,	102.83	107.84
Leipsic,	106.16	105.94
Average,	104.46	103.85

Captain Bickes has extended his inquiries into the proportion of the sexes in legitimate births to a very great number of towns, and the average of the whole, as calculated by M. Quetelet, is 104.74 males to 100 females. The investigations of M. Poisson founded on the public documents of France, from 1817 to 1826, inclusive, show that in illegitimate births the males are to the females as 21 to 20, instead of as 16 to 15, and M. Mathieu has come to the same conclusion. The observations of Mr. Babbage, in his letter to Sir D. Brewster, inserted in the first Number of the Journal of Science, lead to the same result.

Various attempts have been made to explain this phenomenon. M. Prevost conceives that, independently of any physiological cause, the explanation is to be found in the general desire for male in preference to female children. The consequence of this, in his opinion, is to prevent the increase of the family after the production of male children. When parents have a son, if any thing prevent the increase of their family, they are less annoyed than they would have been, if they had had no male progeny. May not this diminution of the number of births, he asks, after the appearance of one or more sons, tend to increase the ratio of male infants? Without absolutely denying the influence of this moral restraint in certain cases, we agree with M. Quetelet in believing it to be altogether inconsistent with facts which we shall notice immediately.

Another explanation has been given by M. Giron de Buzareignes, in his communication to the Academy of Sciences of Paris. He divides society into three classes—the first composed of individuals whose occupations tend to develop their physical qualities, the second of those whose occupations tend to weaken these powers, and the third, of those whose occupations are mixed. According to his view, the proportion of male births in the first class will exceed that of France in general, in the second class it will be the reverse, and in the third class the two will be equal. Thus, agricultural pursuits should favour the production of males, manufactures and commerce should do the reverse. This agrees sufficiently with the results already quoted, but when applied to the different countries of Europe does not hold good.

The hypothesis of M. Bickes, who combats the doctrine of M. Giron de Buzareignes, is novel but inadmissible. He assures us that the cause is to be found in the blood (constitutions) of populations which differ from each other in this respect. According to him, political and civil institutions, customs, occupations, modes of life, riches, poverty, &c., have no influence whatever on the proportion in which the two sexes come into the world. The difference of this proportion in legitimate and illegitimate children, he does not believe it possible to explain.

The investigations of Professor Hofacker in Germany have led him to conclude, that the true explanation will be found in the relative ages of the parents. The following table exhibits the results of his inquirers:

Relative ages of the Parents.	Proportion of Boys to 100 Girls
The man younger than the woman,	90.6
„ as old as the woman,	90.0
„ older than the woman from 3 to 6 years,	103.4
„ „ 6 to 9 „	124.7
„ „ 9 to 18 „	143.7
„ „ 18 and more,	200.0
The man 24 to 36, and the woman 16 to 26 years,	116.6
„ „ 36 to 46 „	95.4
„ 36 to 48, „ young,	176.9
„ „ „ „ middle aged,	114.3
„ „ „ „ above,	109.2
„ 48 to 60, „ middle aged,	190.0
„ „ „ „ above,	164.3

From the table above given, it would appear that in general, when the mother is older than the father, or both parents are of the same age, fewer sons are produced than daughters. The older the father is than the mother, the greater is the proportion of sons.

Mr. Sadler's observations are next quoted by M. Quetelet, with which, from their being of easy access in this country, it is unnecessary to detain the reader further than to remark that they completely corroborate Professor Hofacher's views.

It is easy to explain on this hypothesis the difference in the proportion of sexes at birth, for the husband, being generally older than the wife, male infants must predominate. To place the matter, however, beyond all doubt, it would be necessary to ascertain in a given district of considerable extent and population, the ages when marriages are made, and then compare the proportion of the sexes according to this law which should be born, with the proportion actually produced.

M. Quetelet next examines the influence which age exercises on the fecundity of marriages. The facts which he brings forward are quoted from Dr. Granville, Mr. Sadler, and Mr. Finlaison, and as they will no doubt be familiar to our readers, we shall give only the author's inductions.

1. Precocious marriages entail sterility, or, if fruitful, the probability of the children's lives is less.

2. A marriage if not sterile produces the same number of births, at whatever age it may be contracted, provided it be under 33 in the male, and 26 in the female. After these ages the numbers may be diminished.

3. From this and the consideration of the probabilities of life, it may be concluded, that the greatest fecundity occurs before the age of 33 in man, and 26 in woman.

4. Looking to the respective ages of the parents, it will be found that *cæteris paribus*, the most productive marriages are those in which the man is at least as old as the woman or older, provided the difference be not carried to an extreme.

M. Quetelet next inquires whether the course of nature be followed in marriages, and finds that in Belgium the greatest number occurs between the age of 26 and 30, both in men and women, the *maximum* being towards 29 in the former, and after 27 in the latter. After 35, the number of marriages sensibly diminishes. Allowing twelve months to elapse before the first child is born, which is about the average in fertile marriages, he concludes from various *data*, that men will have their first born about 30, and women about 28, which will give the duration of a generation in Belgium, and this is found to be about the duration of the average life.

It is a remarkable fact, that marriages do not become frequent till man has passed the age when his passions are strongest, and his propensity to crime greatest, and reached that at which the development of his physical powers is completed, and his intellect becomes more energetic.

According to M. Friedlander, the greatest number of deliveries in Sweden and Finland, takes place among women about thirty years of age, as shown in the following table:

Age of the women delivered.	Average No. of living women.	Annual deliveries.	No. of women to 10 deliveries.	Proportion in 1000 deliveries.
15 to 20, . .	134548	3298	408	33
20 to 25, . .	129748	16507	78	165
25 to 30, . .	121707	26329	46	263
30 to 35, . .	111373	25618	43	256
35 to 40, . .	97543	18093	54	181
40 to 45, . .	90852	8518	106	85
45 to 50, . .	78897	1694	465	17
above 50, . .	69268	39	17760	0.4

M. Quetelet next considers the influence of climate on fecundity, and notices the information on this subject contained in the works of Rickman, Bisset Hawkins, D'Ivernois, Benoiston de Chateauneuf, Sadler, &c. From the deficiency of data, however, and from those which we possess being so modified by accessary causes, as to render it almost impossible to separate them from elements foreign to the question, and to come to any conclusions worthy of confidence, we can form no conclusion whether the north or the south is most favourable to fecundity.

It would appear from some facts stated by the author, that Mr. Sadler's opinions on the connection of the fecundity of marriage with some other circumstances are fully borne out. The opinions to which we allude are, 1*st*, that those places in which the greatest number of marriages annually takes place, fecundity is least; and 2*d*, that such places are distinguished by the greatest mortality. M. Quetelet, however, distinguishes between the fecundity of marriage, and the fecundity of population, which Mr. Sadler seems to have confounded. It has been said that deaths make room for marriages, and Mr. Sadler's facts prove this. But it has been farther stated that mortality increases fecundity, and Mr. Sadler offers in contradiction the results which he has obtained. Now M. Quetelet shows that the fallacy arises from the application of the term *fecundity*, Mr. Sadler applying it to each marriage, and his opponents to the increase in the population. In a country where the mortality should happen to be very great, especially among adults, second and third marriages may be more numerous, and each marriage thus produce fewer children, though in fact the fecundity of the population be very great. A women, for instance, may have by one marriage five children. If the mortality should happen to be greater, and she be married twice instead of once, she might have the same number of children or even more, and yet the fecundity of each marriage would be only a half, while the fecundity of the individual was in reality the same or even greater. Thus, though the laws above given as stated by Mr. Sadler, be according to one interpretation, though not that which he affixes to them, correct, to avoid ambiguity, and reconcile them to the real state of the case, they ought to be thus expressed: *Cæteris paribus*, in any country where the mortality is increased, the number of marriages will be increased, and the fecundity of each marriage lessened.

M. Quetelet next shows the influence of particular years on the number of marriages, and their fecundity. From the researches of Sussmilch, Kickman, and Sadler, he concludes that the fecundity of marriages does not sensibly vary in any one country in the course of a century, when periods of calculation are taken of a length sufficiently long to remove the accidental causes produced by more or less fortunate years.

In particular years, epidemics, famine, and great plagues influence in a sensible manner, not only the number of deaths, but that of marriages and births. It certainly does not always follow that when the necessaries of life are dear one year, that fewer births and marriages should be the result, because this influence may be masked by some other. But when the increase of price is considerable, it is more than probable that the register will show a falling off in the number both of marriages and births, as well as an increase in that of deaths. This is supported by a table which our limits will not permit us to quote.

The influence exerted by the different seasons next engages the attention of the author. In 1824, M. Quetelet published the results of some inquiries into this subject in Brussels, which were afterwards confirmed by the publication of Professor Vanswinden's researches and others more extensive which he himself instituted both in the principal cities, and also in the rural districts of the low countries. The following table shows the inequality in the number of births at various seasons. The first column exhibits the average number of births for twelve years, both in towns and in the country. In the last column, the average of the whole number is taken as unity, for the purpose of showing the variations more clearly.

Months. 1815 to 1826.	Births. Towns.	Births. Country.	Births. Towns.	Births. Country.
January, . .	68255	159787	1.067	1.102
February, . .	71820	170699	1.122	1.177
March, . .	69267	164851	1.083	1.137
April, . .	66225	147118	1.035	1.014
May, . .	62102	134446	971	0.927
June, . .	58730	125026	0.918	0.862
July, . .	57151	121512	0.893	0.838
August, . .	59620	131657	0.932	0.908
September, . .	62731	144389	0.960	0.995
October, . .	62500	146362	0.977	1.009
November, . .	64273	146285	1.005	1.009
December, .	65120	148186	1.018	1.022
Average,	63983	145026	1000	1000

From the table just given, it appears that the influence of season is more decided in the country than in towns, which is what we should have expected, since the inequalities of temperature are more felt in the former than in the latter. The greatest number of births occurs in February, and the smallest in July, and hence it follows, that most conceptions take place in May, and fewest in October. We shall come to the same result, whether we take the numbers by quarters or half years. Most conceptions take place during summer. M. Quetelet asks whether we may not conclude from the above, that the climates most favourable to fecundity are those which enjoy a mild temperature, and that excessive heat or cold injures propagation. Whatever may be thought of this suggestion, our readers will have little difficulty in agreeing with M. Villermé, quoted by the author, that the influence, direct or indirect, of the annual revolution of the earth round the sun, of the great variations of temperature produced by this revolution, and of certain meteorological states, on conception, and consequently, on the number of births is evident. Although, however, this may be considered as proved, in respect to the northern hemisphere, by the inquiries instituted into the subject, by different statisticians, it would be at least satisfactory to ascertain, whether the same takes place in the southern hemisphere, because if this should be found to be the case, the most sceptical will be satisfied. Now, M. Villermé has been able to procure returns only from one place, the republic of Buenos Ayres, and according to these, those months in which the greatest number of births takes place are July, August, and September, that is in winter, those in which the least, January and May, that is in summer. Thus it appears that in the southern as well as in the northern hemisphere, most conceptions occur in the summer months, and most births in the winter.

Curiosity led M. Quetelet to inquire whether there was any connection between the different hours of the day, and the number of births. Dr. Guiette, attached to the Lying-in Hospital of Brussels, furnished him with results for eleven years, from 1811 to 1822, and M. Villermé found them agree with those which he obtained from the Lying-in Hospital at Paris. The following table exhibits Dr. Guiette's observations, both for the eleven years alluded to, and also for two additional years, 1827–8:

Hours.	Births. 1811-22.	Still Born. 1811-22.	Births. 1827-8.
After midnight, . .	798	53	145
Before mid-day, . .	614	51	119
After mid-day, . .	574	59	119
Before midnight, . .	694	55	148
Total, . .	2680	218	531

From these numbers it would appear that the proportion of children born during the night to those born during the day is very nearly as 5 to 4.

Dr. Buek of Hamburgh also made several observations, the result of which will be found in the following table, the numbers being reduced to proportions of 1000:

Birth.	Winter.	Spring.	Summer.	Autumn.	Average.
After midnight, . .	325	320	291	312	312
Before mid-day, . .	270	252	256	216	249
After mid-day, . .	190	136	189	225	183
Before midnight, . .	215	292	264	247	256

Proportion of the night to the day 1.31 to 1.

The influences already considered are those which M. Quetelet reckons natural. We now come to the disturbing influences of profession, morality, religious and political institutions.

The influence of profession would appear to be masked by other circumstances, in such a manner as to prevent us in the present state of our knowledge from appreciating its force. The only conclusions that can be drawn from inquiries already made is that it is not powerful, and that it principally depends upon the quantity and nature of the aliments, and the development of physical power.

In respect to the influence of morality, it may be observed that concubinage produces fewer male children. The same will be the result of all enervating habits, which, it is well known, lessen the number of conceptions. Prostitutes produce very few children or are barren. Precocious connection between the sexes has similar effects, or leads to the production of children who have less chance of living.

M. Quetelet agrees with most political economists, that habits of order and forethought diminish the number of marriages, and consequently of births, and that, on the contrary, misery and ignorance produce the opposite effects. He is also of opinion that the fecundity of marriage is lessened by prudential habits. We suspect few individuals are so philosophical in this respect as to limit the supply to the demand. Prudential motives may prevent marriages, but we hardly think that, when the connection is once formed, an individual will find it possible to control so completely the usual results, as M. Quetelet takes it for granted he can, though he has not stated the means by which it is to be accomplished.

Two facts worthy of notice are mentioned by M. Quetelet, 1*st*, that the epoch of the greatest number of conceptions corresponds nearly to that in which the most rapes and attempts upon chastity are committed; 2*d*, that the proportion of illegitimate to legitimate children is very large, and in some places on the increase. Mr. Babbage, in his letter to the Right Honourable T. P. Courtenay, states the proportion of illegitimate to legitimate children in the under-mentioned countries to be as follows:

Country.	Illegitimate to 1000 legitimate.	Legitimate to 1 illegitimate.
France, . . .	69.7	14.3
Kingdom of Naples, .	48.4	20.6
Prussia, . . .	76.4	13.1
Westphalia, . .	88.1	11.4
Cities of do. . .	217.4	4.6
Montpelier, . .	91.6	10.9

The number of illegitimate children in the cities of Westphalia, though enormous, is, as we shall see, much below that in Paris. About fifty years ago, at Stockholm, Göttingen, and Leipsic, the sixth of the births was illegitimate; at Cassel the fourth; at Jena the seventh. The following view exhibits the progress of female debasement at Berlin:

Periods.	Total Births.	Illegitimate Births.	Proportion.
1789 to 1793, . .	26572	2824	9 to 1
1794 to 1798, . .	30165	3006	9 to 1
1799 to 1803, . .	31538	3800	8 to 1
1804 to 1808, . .	30459	4941	6 to 1
1819 to 1822, . .	26971	4319	6 to 1
From 1789 to 1822,	145705	18890	7.8 to 1

The following table exhibits the state of Paris in this respect:

	Births.		
	Legitimate.	Illegitimate.	One illegitimate birth to legitimate.
1823, .	. 27070	9806	2.76
1824, .	. 28812	10221	2.82
1825, .	. 29253	10039	2.91
1826, .	. 29970	10502	2.85
1827, .	. 29806	10392	2.86
1828, .	. 29601	10475	2.81
1829, .	. 28721	9953	2.88
1830, .	. 28587	10007	2.85
1831, *	. 29530	10378	2.83
1832,	. 26283	9237	2.84
Average,	287633	101010	2.84

Thus of every 28 births in Paris 10 are illegitimate. This is the most deplorable picture of libertinism which has as yet been presented in an authentic form.

In reference to the effect of civil and religious institutions, M. Quetelet remarks that nothing appears to favour reproduction more than peace and plenty. In opposition to this it has been stated, that during the reign of Napoleon, though destructive wars then raged, the French population, far from decreasing, increased in a greater ratio than before, while the number of deaths was less; and that, on the other hand, when peace came, the mortality became greater. The researches of M. D'Ivernois, however, show that the statement is altogether incorrect. The number of deaths appears to have been somewhat greater in the first years of peace, but it must be recollected that, during the reign of Napoleon, the tables of mortality did not embrace those who perished in battle or died in military hospitals, whereas after the restorations all such casualties were included in the general account.

M. Quetelet agrees with other writers in thinking that political and religious prejudices have, to a certain extent, influenced reproduction. As long as a large family was looked upon as a special mark of the favour of Heaven, and encouraged not only by governments but by political economists, from whom we might have expected sounder opinions, the great mass of the people acted upon these views, to as great an extent as other counterbalancing circumstances would permit, and so far consequently the population of states was increased. Monastic vows must have tended considerably to keep down the numbers of mankind, and the researches of M. Villermé show that the observance of Lent, as it was formerly kept, had a marked effect on diminishing the number of conceptions which took place during the time it lasted. The destruction of religious houses at the Reformation, and the scattering of their inmates at that period, and afterwards during the French Revolution, together with the less austere manner in which Lent and fasts have lately been kept, must have proved so many means of increasing the number of the inhabitants of Europe.

It has been stated above that the epoch at which marriage takes place influences the number and sex of the children. It appears, however, from the researches of M. Villermé that the connection between the month in which the ceremony is celebrated, and the conceptions which follow, is scarcely appreciable; that marriages appear to be a little, but a very little, more fruitful during the first months than afterwards, and that, however likely it may be, there is no positive proof that a woman has more chance of becoming pregnant during the first days or weeks after her marriage when it takes place in April, May, June, or July, than if it had occurred in any of the other months of the year.

Connected with the inquiries of the results of which we have now given a brief summary, is the proportion of still-born children. The following table

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* These numbers do not comprehend 1099 and 1065 children recognized and legitimized after their birth.

exhibits this proportion in some of the districts and cities of Europe, with the authorities:

Places.	Proportion of births to 1 still-born.	Authors.
Strasburg, . .	11	Friedlander.
Hamburgh, . .	15	Casper.
Dresden, . .	17	Rambach.
Paris, . . .	19	Baumann.
Berlin, . . .	20	Casper.
Vienna, . . .	24	"
London, . . .	27	Black.
Brunswick, . .	33	Rambach.
Stockholm, . .	36	Wargentin.

The proportion, then, is about 1 in 22, which differs little from that of Berlin, where it has continued nearly the same for more than sixty years. The reader will not fail to remark that some of the numbers in the table just given were taken several years ago, and that a considerable change may in all probability have taken place in the interval, in consequence of the advancement of medical knowledge, and the abandonment or abatement of absurd prejudices.

From the researches both of Casper and the author, it appears that the proportion is much larger in towns than in rural districts, which M. Quetelet seems inclined to attribute in a great measure to tight lacing. The number of male children who thus perish is greater than that of female, and the proportion varies in different places. In Western Flanders it is about 14 to 10; in Berlin, from 1785 to 1794, it was 15 to 12, and from 1819 to 1822, about 15 to 10; in Amsterdam, from 1821 to 1832, as 12 to 16; in Paris somewhat less, and in Denmark about the same. We consider the explanation which M. Quetelet gives of this phenomenon to be unsatisfactory. He thinks that if a conjecture is to be hazarded on this subject, the conception of a male infant supposes a certain excess of power in the woman, that she ought to have the same excess during pregnancy, and that if this be wanting the child will suffer much more if a boy than a girl. It is evident also, he continues, that women residing in towns, who are more delicate than those living in the country, will have a greater chance of producing dead children, especially if they should be male. To us it appears that it is more reasonable to suppose that, as male children are larger than female, the chance of their coming into the world alive, if the mother's pelvis be at all deformed, is less than that of female infants, and that, as such deformities are more common in towns than in the country, such accidents will be more frequent in the former than in the latter.

M. Quetelet has endeavoured to ascertain at what times of the year most children are still-born, and the result is, that winter is more unfavourable than summer.

The circumstances which seem to have some influence in producing this unfortunate result are stated by Casper to be illegitimacy, venereal diseases, abuse of intoxicating liquors, &c. Thus at Göttingen the proportion of illegitimate to legitimate children who perished in this manner was as 5 to 1, and in Berlin formerly as 3 to 1. In the latter city there was little improvement so late as 1819–22, the proportion being rather more than two to one. This might have been expected, both from the want of care and greater hardships to which these unfortunate little beings are exposed, and from the parents in many cases being in a weaker state of health. In the venereal hospital at Paris, M. Duges estimated the proportion of premature births to be two out of six or seven. At Hamburgh, in 1820, in a house where there were scarcely any but prostitutes, affected with the venereal, of 18 illegitimate infants 6 were still-born; and in another establishment in the same city, occupied in part by the women of the town, the proportion was 11 in 93.

In considering the mortality of children at their birth, it may not be amiss to ascertain the fate of the mothers. According to Willan, in the London Lying-in Institution, where 5000 patients were annually received, the loss of mothers and children was as follows:

	Mortality of Mothers.	Mortality of Infants.
1749 to 1758,	1 in 42	1 in 15
1759 to 1768,	1 in 50	1 in 20
1769 to 1778,	1 in 55	1 in 42
1779 to 1788,	1 in 60	1 in 44
1789 to 1798,	1 in 288	1 in 77

According to Bisset Hawkins, the mortality in the same institution, among the mothers, in 1826, was 1 in 70. The same authority states, that in the Lying-in Hospital of Dublin, from 1757 to 1825, the proportion of children dying in the house was 1 in 19, of the still-born 1 in 17, and of the mothers who perished 1 in 89. According to Dr. Collins, whose interesting work we lately noticed, the proportion of still-born children in the same hospital in seven years, from 1826, was very nearly 1 in 16. The deaths of the mothers amounted to about 1 in 100. But if we subtract those not the result of labour, the proportion will be reduced to 1 in 244. According to Tenon, the mortality at the end of the last century, among mothers confined in the Hotel Dieu of Paris amounted to 1 in 15. In 1822 it was reduced to 1 in 30, it being 1 in 29 at the same period at Stockholm; and in the Lying-in Hospital of Edinburgh, during 1826, 1827, and 1828, it was only 1 in about 100. The following table gives the results for Berlin, as ascertained by Dr. Casper:

	Proportion.
1758 to 1763,	1 in 95
1764 to 1784,	1 in 82
1785 to 1794,	1 in 141
1819 to 1822,	1 in 152

It is curious that the highest and lowest rate of mortality among mothers occurred at the end of the last century, the former being in Paris 1 in 15, and the latter in London 1 in 288.

II. Mortality.—Our summary of the author's observations on the influence of natural causes on mortality must be very brief; and we are the more inclined to follow this course, because there is little in them which is new to those who have paid any attention to the subject.

Dividing Europe into three regions, north, middle, and south, it appears from the documents quoted by M. Quetelet that the rate of mortality is as follows:

North,	1 in 48.5
Middle,	1 in 30.75
South,	1 in 33 66
Average,	1 in 37.48

M. Quetelet considers, however, that the following is nearer the truth:

North,	1 in 41
Middle,	1 in 40.8
South,	1 in 33.7
Average,	1 in 38.15

The lowest rate of mortality occurs in England, it being only 1 in 51, and the highest in Russia, 1 in 21. If England be excluded from the calculation, the central part of Europe will exhibit the smallest proportion of deaths.

The following table exhibits the rate of mortality in situations nearer the equinoctial line:

Latitude.	Place.	Rate of Mortality.	Authority.
6° 10′,	Batavia,	1 in 26	Moreau de Jonnès.
10 10,	Trinidad,	1 in 27	„
13 54,	Sante Lucie,	1 in 27	„
14 44,	Martinique,	1 in 28	„
15 59,	Guadeloupe,	1 in 27	„
18 36,	Bombay,	1 in 20	„
20 51,	Isle of Bourbon,	1 in 44.8	Thomas.
23 11,	Havanna,	1 in 33	Moreau de Jonnès.
34 23,	Cape of Good Hope,	1 in 51	Bisset Hawkins.

Several other documents are quoted by M. Quetelet, and from these and the results which we have now given, it would appear that both in the northern and southern countries, as well as in those approaching to the equator, the rate of mortality is greater than in temperate regions. The mortality is greater in towns than in country districts.

There is a considerable difference between the sexes in the rate of mortality. Towards birth more male infants die than female. About the age of two the mortality of the two sexes becomes nearly the same. That of females after this period increases, till between 14 and 18 years of age, or after puberty, the difference becomes very distinct. Between 20 and 26, the epoch of the most active passions, the mortality of the male exceeds that of the female. Between 26 and 30, the usual period of marriage, the proportion is equal. Among women, however, during the period of fecundity, the number of deaths is rather increased. Afterward the age of reproduction the rate is diminished, and the two sexes drop off in the proportion in which they have been left at this period. The great mortality of women in the country during the period of child-bearing, observed on the continent, may be accounted for by the severity of the labours to which they are exposed at the very time when their health requires great care.

M. Quetelet presents us with an elaborate table of the proportion of the deaths of either sex from the age of one month to that of 104 years.. From this the following results may be deduced. At the period immediately after birth the probable life is 25 years; in other words, at the age of 25 only one-half of the children born at the same time will be alive. The probable life of the female is greater than that of the male, the former being 27 in the country, and more than 28 in towns, the latter less than 24 in the country, and less than 21 in towns.

In both sexes and in all situations, the probable life is longest about the age of five;—being 51 for women in towns and men in the country, and 48 for women in the country and men in towns. The farther we advance from this period, the shorter the probable life becomes. Thus at the age of forty it is 27 for men in the country and women in towns, and 25 for men in towns. At sixty it is from 12 to 13, and at eighty only 4.

The mean life in Belgium is 32.15 years. Considering sex and place of abode, it is as follows:

	Towns.	Country.
Men, . . .	29.24	31.97
Women, . . .	33.28	32.95

According to Mr. Rickman, the mean life in England is 33, being 32 for men and 34 for women. In France it is 32.2. These calculations suppose the population to be stationary, but as this is not the case they lead to erroneous results.

One-tenth of the children born dies within the first month, the mortality at this period being equal to that between 7 and 24, or between 24 and 40; or that of all who survive the age of 76. Within the first year, the number of male children is reduced by a fourth, and in cities of 10,000 only 5738 reach their fifth year.

From the facts collected by M. Villermé, it appears that the epidemics which attack all ages are most fatal to those at the two extremities of life, and that the mortality of an epidemic follows the general law of the mortality of age.

In remarking on the influence of particular years on the rate of mortality, M. Quetelet takes occasion to point out an error into which Mr. Sadler and others have fallen, in supposing that the effect of famine or war in increasing the number of deaths, should be apparent in those very years in which such famine or wars occurred. He justly remarks, that this influence will not become visible for several months or even a year after its appearance, and it may happen in the case for instance of a dearth, that the price of provisions may fall precisely at the period when the increased rate of mortality appears on the registers. This is easily explained. The effects of famine or war will not exhibit themselves immediately. A certain time must elapse before the evil results appear, and just at this moment peace and plenty may return. If the precaution be taken to include three or four years in each of the periods chosen for comparison, the result will be exactly that which might have been *a priori* come to, that the rate of mortality will be increased in proportion to the privations to which the great body of the population is exposed.

The following table exhibits at a glance the influence of seasons on mortality:

Months.	Deaths.		Proportion.	
1815 to 1826.	Towns.	Country.	Towns.	Country.
January, . .	59892	116129	1.158	1.212
February, . .	56267	114758	1.088	1.198
March, . .	54277	114244	1.050	1.192
April, . .	51818	107264	1.002	1.120
May, . . .	48911	93714	0.946	0.978
June, . . .	46607	84464	0.901	0.882
July, . . .	45212	77555	0.874	0.809
August, . .	47032	78802	0.910	0.822
September, . .	50191	85131	0.971	0.888
October, . .	51649	89514	0.999	0.934
November, . .	52908	89585	1.024	0.935
December, . .	55631	98705	1.076	1.030
Average,	51700	95822	1.000	1.000

From this it appears, that the fewest deaths take place at that period of the year when men have least to fear from the inclemency of the weather. This period coincides also with that during which most conceptions occur. It is clear that civilization can do much to modify these results.

M. Quetelet has furnished a very interesting table of the comparative mortality of different ages in each month, which we transfer to our pages.

Table showing the influence of age and season on mortality:

Age.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
0 to 1 mo.	1.39	1.28	1.21	1.02	0.93	0.83	0.78	0.79	0.86	0.91	0.93	1.07
1 to 3	1.39	1.18	1.15	0.95	0.89	0.82	0.83	0.94	0.83	0.92	0.97	1.13
3 to 6	1.24	1.06	1.02	0.90	0.95	0.95	0.99	1.06	0.99	0.94	0.86	1.02
6 to 12	1.28	1.21	1.27	1.18	1.06	0.84	0.76	0.87	0.81	0.82	0.86	1.03
12 to 18	1.10	1.11	1.24	1.30	1.25	1.03	0.88	0.81	0.74	0.77	0.78	0.98
18 to 24	1.23	1.18	1.21	1.18	1.03	0.84	0.80	0.76	0.75	0.81	1.01	1.18
2 to 3 years.	1.22	1.13	1.30	1.27	1.12	0.94	0.82	0.73	0.76	0.78	0.91	1.01
3 to 5	1.23	1.16	1.26	1.29	1.13	0.94	0.78	0.74	0.73	0.79	0.89	1.05
5 to 8	1.29	1.17	1.32	1.24	1.20	0.96	0.78	0.74	0.76	0.75	0.85	1.02
8 to 12	1.08	1.06	1.27	1.34	1.21	0.99	0.88	0.82	0.81	0.76	0.80	0.96
12 to 16	0.95	0.95	1.14	1.14	1.19	1.04	0.97	0.95	0.96	0.81	0.86	1.04
16 to 20	0.93	0.94	1.07	1.18	1.15	1.03	1.00	0.99	0.89	0.87	0.95	1.01
20 to 25	0.97	1.00	1.09	1.02	1.09	0.96	0.90	0.92	0.96	0.95	1.03	1.11
25 to 30	1.05	1.04	1.11	1.06	1.02	1.02	0.91	0.96	0.95	0.93	0.97	0.97
30 to 40	1.11	1.13	1.11	1.04	0.99	0.92	0.85	0.94	0.99	0.95	0.94	1.03
40 to 50	1.17	1.15	1.13	1.05	0.99	0.86	0.86	0.94	0.93	0.87	0.95	1.11
50 to 65	1.30	1.22	1.11	1.02	0.93	0.85	0.77	0.85	0.89	0.90	1.00	1.15
65 to 75	1.43	1.32	1.18	0.99	0.91	0.77	0.71	0.80	0.88	0.86	0.98	1.17
75 to 90	1.47	1.39	1.16	1.01	0.87	0.77	0 67	0.75	0.84	0.84	1.00	1.21
90 and above.	1.58	1.48	1.25	0.96	0.84	0.75	0.64	0.66	0.76	0.74	1.03	1.29
Average,	1.26	1.20	1.17	1.08	1.00	0.88	0.80	0.84	0.86	0.86	0.94	1.09

Few inquiries seem to have been made into the influence of particular periods of the day on mortality. The results obtained by M. Quetelet differ from those of Dr. Buek, as will be seen below.

I. M. Quetelet.

Hours.	Deaths.
12 to 6 A.M.	1397
6 to 12 A.M.	1321
12 to 6 P.M.	1458
6 to 12 P.M.	1074
	550

I. Dr. Buek.

Period.	Win.	Spr.	Sum.	Aut.	Aver.
After midnight,	315	321	292	281	306
Before mid-day,	243	260	236	220	242
After mid-day,	194	211	220	227	211
Before midnight,	248	207	252	272	241

No positive conclusion can be drawn from such limited *data.*

M. Quetelet next considers the influence of disturbing causes on the number of deaths. These are, professions, morality, intelligence, and political and religious institutions. Statisticians have already proved that the mortality in manufacturing districts is greater than that in agricultural, and greater also in towns than in rural districts. Wealth, or at least competence, is also ascertained to be more favourable than poverty to longevity. Among negroes who are slaves, the annual mortality is 1 in 5 or 6, while among negroes serving in the British army it is only 1 in 33.3. According to Bisset Hawkins, the mortality among our marines was 1 in 42 in 1813, and that of our land troops still less. In France, according to M. Chateauneuf, the mortality of the soldier is greater than the average; that of the Guards less than that of the army, and that of non-commissioned officers in both, less than that of privates. M. Quetelet quotes some important facts in reference to the influence of seasons on the mortality of troops, and gives from M. Lombard a general list of professions according to their liability to phthisis, of which notice has already been taken in the 45th volume of this Journal.

The following table from Casper gives some notion of the expectancy of life in different professions:

Professions.	No. of 100 who reach 70 years of age.
Theologians,	42
Agriculturists and foresters,	40
Superior clerks,	35
Merchants and manufacturers,	35
Military men,	32
Inferior clerks,	32
Advocates,	29
Artists,	28
Teachers and professors,	27
Medical men,	24
Average,	32.4

From this table it would appear that mental occupation is more prejudicial to life than bodily fatigue; that the most favourable to longevity is a sedentary life not exposed to any excess; and that the most unfavourable is that in which mental and bodily exertion are combined. The following view exhibits in a marked manner the difference between the extremes.

Of 1000 deaths in each profession there will be

Age.	Medical men.	Theologians.	Proportion of former to latter.
23 to 32,	82	43	1.91
33 to 42,	149	58	2.57
43 to 52,	160	64	2.50
43 to 62,	210	180	1.17
63 to 72,	228	328	0.70
73 to 82,	141	257	0.55
83 to 92,	30	70	0.43
	1000	1000	

M. Quetelet offers some observations on the comparative liability of different ages, and of the two sexes, to stone. From the tables which he gives, it appears, that of 2643 patients affected with stone in different cities, 1327 were under 10 years of age; 562 between 10 and 20; 215 between 20 and 30; 130 between 30 and 40; 129 between 40 and 50; 159 between 50 and 60; 106 between 60 and 70; and 15 above 70. In 4872 cases, the proportion of female patients to male was as 1 to 21.14.

In the section devoted to the consideration of the influence of morality on the number of deaths, M. Quetelet shows that the ratio of deaths of illegitimate children is about double that of legitimate, and that Foundling Hospitals, so far from being the means of preserving life, seem to have an opposite effect. Every fact brought forward on this subject tends to corroborate the conclusions of M. De Gouroff, that wherever asylums are opened indiscriminately for all infants abandoned at their birth, the number of such unfortunate beings is greater than elsewhere:—that the mortality in such asylums is frightful, and far beyond the extreme of that to which infants of the most indigent classes of society are exposed;—that infanticide is scarcely prevented by Foundling Hospitals; or rather, that for the purpose of preventing a few infanticides, these institutions destroy an incomparably greater proportion of infants than would have perished in any other way.

The spread of intelligence has an undoubted effect in increasing the amount of human life. The general adoption of vaccination, the increased desire for, and consequent attainment of, comforts by the working-classes which, half a century ago, would hardly have been dreamed of by the middle classes, have all had a beneficial effect in lessening the ratio of mortality. It is true that the notions of comfort to which we have just alluded tend to lessen the number of marriages, or at least of early marriages; but any diminution of the amount of children born, if any in reality exists, is more than compensated for by the greater length of life of those brought upon the stage, and what is implied in this, the greater number reared to maturity.

M. Quetelet next notices the mortality in different jails, hospitals, and workhouses. The most of his facts have already been laid before the public. From a consideration of the whole it would appear, though the author has not drawn the conclusion, that the rate of mortality of the inhabitants of prisons, hospitals, and work-houses, under proper regulation, ought, *cæteris paribus*, to be considerably less than that of other classes of the community.

The remainder of the first volume is devoted to the consideration of that branch of political economy which comprehends the law or principle of population, and the doctrines which may be deduced from. Connected as this subject is with political doctrines, and foreign to the objects of this Journal, we pass it over with the remark, that it will be found not less interesting than the other portions of the work.

III. HEIGHT, WEIGHT, INSPIRATION, PULSE, SWIFTNESS, AND AGILITY OF MAN AT DIFFERENT AGES.—At first sight, the determination of the height, and weight, and physical development of man at different ages appears to be a subject of little interest, and hence till M. Quetelet began the investigation, little or nothing was ascertained regarding it. The inquiries previously made had been directed to his height and weight at the periods of birth and full development. These were ascertained at the former period, in reference to the medico-legal questions connected with infanticide, and at the latter merely as a matter of curiosity. Independently of the interest of the subject to the physiologist, it is necessary to procure the means of solving a medico-legal question which may be proposed, viz. to determine, by means of his physical qualities, the age of an individual who is dead.

1. *Development of Stature.*—M. Quetelet gives numerous observations made on different classes in different countries, and by various individuals, which our limits will not permit us to quote. The results, however, of the whole, may be thus summed up in the following aphorisms:

1*st*. The limits of growth in man and woman are not the same, because the latter at birth is smaller than the former; her development is sooner completed, and her annual growth is less.

2d. The stature of inhabitants of towns exceeds that of inhabitants of the country at nineteen years of age, by two to three *centimètres.*[*]

3d. The growth of man does not seem to be fully terminated at the age of twenty-five.

4th. Individuals living in easy circumstances usually exceed the average height. Wretchedness and fatigue diminish it.

5th. The successive additions to the stature of the individual from a period many months antecedent to birth, to the period of full development, diminish in amount as the age increases.

6th. The most rapid increase takes place immediately after birth, the growth of the child within a year being two decimètres.

7th. The increase diminishes in a direct ratio to the age, till the fourth or fifth year, thus during the second year it is only a half of the first, and in the third only a third.

8th. From the fourth or fifth year to the sixteenth, or till after puberty, the increase is nearly regular, being annually fifty-six *millemètres*, or about the twelfth of that of the fœtus during the months preceding birth.

9th. After puberty the increase is not so marked, being at the age from sixteen to seventeen, four *centimètres*, and in the following two years, only two and a half.

10th. After fifty years of age, the height both of men and women is more and more sensibly diminished, till about eighty, the diminution is about six or seven *centimètres.*

2. *Weight at different ages.*—In the portion of the work devoted to the consideration of this subject, we find the same acuteness and industry displayed, as in the other parts of the work. We subjoin a brief statement of the results.

1st. Children of both sexes differ at birth in weight as well as in length. Of 119 infants weighed at the Lying-in Hospital at Brussels, the minimum of females was 2.34 *killogrammes*,[†] and the maximum 4.50;—the minimum of females 1.12, and the maximum 4.25.

2d. The weight of the infant diminishes immediately after birth, and does not begin sensibly to increase till after the first week.

3d. The ages being equal, the male is generally heavier than the female. The weight is equal only at the age of twelve. Between one and eleven, the difference of weight is from one *killogramme* to one and a half, from sixteen to twenty it is about six, and after that age, from six to nine.

4th. At the period of full development, the weight of the body is nearly twenty times what it was at its birth, while the height has increased only three and a fourth.

5th. In old age, both the male and the female lose about six or seven *killogrammes* of their weight, and about seven *centimètres* of their height.

6th. During development, the square of the weight of the body may be regarded as proportional to the fifth power of the height. After complete development the weight is nearly the square of the height. From this it results, that the longitudinal increase is greater than the transverse, including both breadth and thickness.

7th. The weight of man is greatest at forty, and begins sensibly to diminish at sixty years of age.

8th. The weight of woman is greatest at fifty. From eighteen to forty years of age, the period of fecundity, it is scarcely sensibly increased.

9th. The weight of individuals fully developed varies from one to two, while the height varies only from one to one and a third.

10th. The stature being equal, woman weighs a little less than man, till the height reaches 1.3 *mètre*, which corresponds to what it is at the age of puberty. When the height is greater, the female weighs a little more than the male.

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[*] A French *mètre* is equal to 3.28 English feet, a decimètre is the tenth of a mètre, the centimètre the hundredth, and a millemètre the thousandth.

[†] A *killogramme* is equal to 18827.15 grains.

11*th*. The average weight, regard being had neither to sex nor age, is 45.7 *killogrammes*. Estimating that of the sexes separately, it is 47 killogrammes for man, and 42.5 for woman.

3. *Development of strength*.—M. Quetelet, after pointing out the difficulties and fallacies attending the investigation of this subject, and quoting and commenting upon the results obtained by Regnier, Peron, Ransonnet, Freycinet, and Bailly, gives a table of the strength of the loins possessed by both sexes at different ages, as ascertained by dynamomètre.

From this it appears that there is less difference between them during infancy than after full development. During infancy the lumbar strength of the male exceeds that of the female by about a third, about puberty by a half, and at the period of complete development it is double. The profession of the individual modifies the strength.

From another table of the manual strength of the sexes at different ages, M. Quetelet concludes that that of the male at all ages is greater than that of the female, the difference being generally less in early life. Before the age of puberty the ratio is as 3 to 2, and afterwards as 9 to 5.

4. *Respiration and Pulse*.—In well-formed healthy individuals, the number of inspirations, and of the beats of the heart ranges within certain limits which vary according to age. From the days of Kepler to the present time, authors have differed considerably in their various estimates. These have lately been examined by Dr. Knox, in a paper published in the 131st Number of this Journal,* and as M. Quetelet's facts and deductions have there been very fully given, we shall not occupy the time of the reader by repeating them here.

5. *Swiftness, Agility, &c*.—Many observations and experiments are required before any general conclusions can be formed on these subjects. The following facts, however, have been ascertained by M. Ch. Dupin. A man can march six *kilomètres*† in an hour on a long march. This gives 100 *mètres* a minute, and estimating the length of the pace at eight decimètres, 125 steps are made in a minute and 7500 in an hour. This may be continued for eight hours and a half each day for any length of time without injury to the health or strength. The average weight of a man with his usual clothes is 70 *killogrammes*; and thus a traveller each day transports 70 killogrammes to the distance of 51 *kilomètres*, or, what comes to the same thing, 3570 *killogrammes* to the distance of 1 *kilomètre*.

According to the same author, the length of the military step is 65 centimètres. In ordinary time the soldier takes 76 steps; in quick time, 100; and in a charge, 125.

The mean length of a man's leap is about three times that of the military step.

The remainder of the work is devoted to the consideration of the moral and intellectual qualities of man—the properties of the average man—the social system, and the farther progress of their study. This portion, though highly interesting, we must pass over, as it involves the consideration of subjects and questions which cannot be discussed in a Journal like this. By most readers this portion will be looked upon as the most interesting; and it would be injustice to omit to state, that the author's most original views are to be found here.

We now take leave of these volumes, bestowing on them the highest commendation, in recommending them, not merely to the perusal, but to the serious study of our readers.

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* Republished in No. 10, Vol. I. of "The Eclectic Journal of Medicine."—Ed.

† A kilomètre is 1000 mètres, is 1093.63 yards.

PATHOLOGY AND THERAPEUTICS.

REMARKS ON THE USE OF TARTAR EMETIC AND OPIUM IN SPASMODIC AFFECTIONS.

BY R. YATES ACKERLEY, M.R.C.S.

AMONGST the various affections which engage the attention of the general practitioner, few are of more frequent occurrence than those denominated spasmodic. The suddenness of these attacks, with the fearful appearance of the symptoms, generally throw the friends of the patient into a state of the utmost alarm; it is therefore during the paroxysms that medical aid is most frequently sought. These circumstances, taken in combination with the anxiety which every medical practitioner has to relieve the extreme suffering in his patient, render the knowledge of such remedies, or such mode of treatment, as will certainly and speedily arrest the affection, exceedingly desirable. Every practitioner will, without doubt, endeavour to allay the natural feelings of alarm that arise in the minds of those by whom the patient is surrounded, by assuring them that the disease is not, generally speaking, of a dangerous nature. But this is not sufficient; the affection may progress from hour to hour, from day to day, notwithstanding all his remedies: one paroxysm may succeed another, until the strength of the patient is worn out, and exhausted nature at length finds repose in sleep. Such, I believe, is the general routine of the disorder. The remedies usually set forth in systematic works have been found, in many cases, totally inadequate to the desired end; so far, at least, as the parcxysm or fit is concerned. It is to this latter stage of the affection only, that the following remarks are intended to apply: the after-treatment will, of course, depend on the causes which have given rise to it.

In hysteria, for example, which, according to Cullen and other nosologists, is placed in the class Neurosis, and order Spasmi (for the paroxysm is, undoubtedly, of a spasmodic nature) we have tonic contractions of various parts of the muscular system, occurring as well in the involuntary as in the voluntary muscles. These are dependent, I conceive, on a highly excited state of the brain and nervous system; and the tonic contractions or spasms continue more or less during the paroxysm. It may be argued that this state of the brain and nervous system is not primary, but only symptomatic of some local affection of a distant organ, and that we should therefore direct our attention to the "origo mali," if we hope to be successful in our treatment. But how frequently does it happen, in the treatment of a case, that we are obliged to give up for a time the remedies which are calculated to strike at the root of a disease, in order to combat some particular symptom which may have assumed a threatening aspect, and thus, as it were, for a time lose sight of those principles which form the basis of our treatment. In like manner, in a case of hysteria, I contend that we must leave the particular cause to after-treatment, while we direct our attention to the more formidable symptoms which manifest themselves during the paroxysm.

Now the whole class of antispasmodics, as they are termed, (and these are the remedies chiefly resorted to,) are, with scarcely a single exception, stimulants, and stimulants of a powerful nature. Such medicines, in this state of the system, I should say are not only inapplicable, but prejudicial. For what is the effect of a stimulant applied to a nervous trunk, but to increase its energy, and, consequently, the contractile power of the muscle it supplies? Or, if applied to the nervous extremities, as the surface of the stomach, an increase of action is the consequence. A stimulant, in fact, I need scarcely say, is "that which rouses the action or energy of a part," and, as before observed, all the medicines set down as antispasmodics are stimulants. What result, therefore, are we to anticipate from their employment in hysteria, spasm of the stomach, of the diaphragm, &c. but that they should increase the affection they were intended to subdue? By reasoning from cases somewhat analogous we shall arrive at similar conclusions. Who, for instance, would think of giving ammonia or assafœtida to relieve a spasmodic stricture? Who would prescribe a dose of æther or musk to allay the tonic contraction of the muscles about a dislocated joint, in order to facilitate its reduction? In a case of strangulated hernia, would any benefit be expected to accrue from the administration of camphor, valerian, castor, &c.? Such medicines would undoubtedly increase the spasm.

These views have been confirmed by incidental results in my own practice; and I appeal to the experience of other practitioners, whether their most strenuous endeavours to subdue an attack by the medicines above specified have not frequently proved abortive, even when assisted by the powerful aid of the lancet? Such must have been the result, I have no hesitation in saying, in very many instances. I could cite several cases of this description which I have attended, both alone and in conjunction with other practitioners, in which the disease has been prolonged during two and even three days under such a mode of treatment. I say prolonged, for I have now reason to be convinced, that by the employment of other means the symptoms might have been allayed in as many hours.

By what I have previously stated we are led to the conclusion, either that the affection is of a most obstinate nature, or that the general practice is founded on fallacious principles. The latter, I believe, is the case. It is necessary, therefore, that we should look for some other remedial agent possessing the power of relieving the excited state of the brain and nervous system, and thus allaying the tonic muscular contractions which characterize this class of diseases.

The remedy which I propose, and it is one which I have used with the greatest success for the last three years, is the tartar emetic, in combination with opium in some of its forms. The sedative effects of the opium are powerfully increased by uniting with it the antimonial salt, while its narcotic properties are diminished. The manner in which I prescribe it is the following:—Three or four grains of tartar emetic, with two drams of laudanum or one of Battley's sedative liquor of opium, and two ounces of water. A tea-spoonful of this mixture to be given every fifteen minutes, until relief is obtained, and afterwards every hour, until all symptoms of the affection have disappeared. Its first effect is generally to produce nausea, or even vomiting. The latter I encourage, where, as is frequently the case, I have every reason to suspect that the spasm proceeds from improper or undigested food in the stomach, acting as a source of irritation. After this, the medicine is generally retained; *tolerance*, as Rasori describes it, being established, and the spasms speedily subside. It may be given in spasm of the stomach, diaphragm, spasmodic asthma, and during the paroxysm of hysteria, with the most beneficial results. I have administered it in such cases in the advanced stage of pregnancy; nor do I consider an irritable state of the stomach, with vomiting, any objection to the use of it, the sickness generally subsiding after the second or third dose. Should the symptoms be very urgent, if the case will in other respects allow of it, I do not hesitate to bleed, as a most powerful auxiliary; but phlebotomy may in general be dispensed with. Enemata are also at times beneficial, particularly where the attack is accompanied by constipation, though the tartar emetic sometimes produces evacuations from the bowels, and renders their administration unnecessary.

I am of opinion that this salt possesses a peculiar controlling or sedative power over the brain and nervous system. The beneficial result of Dr. Graves's treatment of the latter stage of typhus, where there was great cerebral excitement, with tartar emetic and opium, as recently published, bear me out in my conclusions. Rasori describes the operation of tartar emetic in large doses as *counter-stimulant*. And Dr. W. Philip speaks in terms of high commendation of the soothing effect of a combination of this salt with henbane, in cases of extreme nervous irritation; and even in maniacal cases, he says, "composure may generally be obtained."

While on this subject, I may also state that I can bear testimony to the good effects of the combination to which I have named, in the treatment of the more sthenic forms of delirium tremens, as recommended by M. Lepelletier, in his recent work on Tartar Emetic. He, however, appears to have given it alone, after large doses of opium had failed in procuring sleep. This is another strong proof of its sedative power.

In illustration of the above views, I could record a number of cases of which I have notes; but since the treatment is so very simple, I shall merely recommend a trial of it to your numerous readers, being myself fully convinced of its efficacy.

There are, however, some other affections in which I have reason to believe that beneficial results might be obtained by a vigorous administration of these remedies; but as I have not yet had opportunities of putting them to the test, I shall merely make a few observations on the subject, which future investigation and experience may either confirm or set aside.

The diseases to which I refer are tetanus and hydrophobia. The former is undoubtedly a spasmodic affection, and very much allied in its pathological characters to those before mentioned. Dr. O'Beirne, in speaking of tetanus, says,* "he believes it to be seated in the anterior spinal cord, and probably in some parts of the brain. The change in these parts is only functional, and not connected with inflammation or organic lesion. All the symptoms are therefore the product of muscular action, dependent upon an accumulation or increased intensity of the *motific principle* residing in the anterior spinal column." In conformity with the above views, the remedial measure on which he places the most reliance is the use of tobacco enemata thrown into the colon. Now, considering that these views are correct, I would suggest the employment of tartar emetic and opium in preference to the tobacco enemata; its action is on the same principle, and its use not attended with the same dangerous results which have frequently followed the employment of this powerful narcotic. The desperate character of the disease is no argument that we should resort to desperate remedies, provided safer ones will answer the purpose.

The latter affection (hydrophobia) is one upon which we are yet in great darkness. The number of well-authenticated cases we have on record, in which this affection could not be placed to the bite of a rabid animal, together with other peculiarities connected with it, lead me to the conclusion, that there are two varieties, as in tetanus, viz. the idiopathic and traumatic. The progress, too, of the disease in those who have been bitten by a rabid animal, is so opposed to all known laws of the effects of a morbid poison introduced into the system, that I cannot but doubt their connexion. Mr. Travers says,† "that a morbid poison received into the circulation will sooner or later show itself in an external form; but independently of that, it will give notice of its existence by a visible decline in the functions of health." This is not the case in hydrophobia; we have here, as in tetanus, no appreciable organic lesion, no external marks making their appearance during the progress of the affection. Ought we not, then, to dismiss the idea of such a poison lying dormant in the system for months, and even years, and then producing such a formidable train of symptoms? And ought we not to direct our treatment more to subdue the peculiar spasmodic symptoms which characterize the paroxysm? The tonquin remedy, which was formerly held in high repute as a specific in this disease, was composed of antimony, opium, and musk. This remedy, I imagine, would not have been so highly extolled, had it not been found beneficial in arresting at least, if not in curing, some cases of this dreadful affection. And when we consider that this was a secret remedy, the *modus operandi* of which was not understood, I think we may reasonably expect more satisfactory results from the judicious employment of tartar emetic and opium, which form the active ingredients in the old remedy.—*Lond. Med. Gaz.*

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* Transactions of the British Association, Bristol, 1836.

† On Constitutional Irritation.

ARTIFICIAL RESPIRATION, DURING CONVULSIVE FITS IN CHILDREN,

BY LAWSON CAPE, M.D.

In the number of the Edinburgh Medical and Surgical Journal for April, 1818, is a paper by my respected friend Mr. Terry, now surgeon to the Northampton General Infirmary, detailing the successful employment of artificial respiration in the asphyxia of still-born children, and pointing out very forcibly the necessity of long-continued perseverance even in apparently hopeless cases. In one instance related by him, resuscitation took place after two hours and a half; and in the other, after one hour and three-quarters: in the latter instance the child being completely restored. I have met with several instances where I have been equally successful, when the action of the heart was not in the least perceptible, and where, for a very considerable time, all appearance of vitality was absent, and yet, after artificial respiration had been kept up for a time in which perseverance seemed hopeless, the action of the heart began to be distinguished, the livid aspect gave place to the colours of health, and the lungs at length were called into action.

My object now, however, is to call the attention of the profession to the application of the same means of artificial respiration in the asphyxia that is frequently met with during a convulsive fit in young infants. I believe that many a child has been lost—often and often the long-suspended act of respiration has ceased entirely—from the attendants limiting their measures to hot baths, frictions, cold water splashing to the face, stimulating applications to the nostrils, &c. &c., when the artificial inflation of the lungs, with the alternate expulsion of the air by pressing the chest and abdomen, would have restored the lost function, and recovered the child. I have met with several successful cases of this character, but the following is so striking that I forward it for publication in your valuable journal.

On the 20th March, 1837, an infant in Nottingham Place, five days old, had been in perfect health up to the moment that he was suddenly seized with a most severe attack of convulsions, the cause of which appeared to be the overloading the stomach the preceding evening. The fits began by the muscles of the eyes and face being thrown into violent clonic contractions, producing the most frightful contortions of the features; the pupils were dilated, the whole face and head turgid, as if the veins were going to burst, and of a deep blue, or rather purple, colour. The respiratory muscles next took on the convulsive action, and caused the greatest oppression in the breathing; indeed the respiration was *completely stopped in most of the fits*, and recovered, after a frightful interval, by convulsive gasps and sobs, followed by deep sighs. The other muscles of the body and limbs then followed, and the whole muscular system became involved in the spasm.

The following is an account of the fits, and their duration:

Interval.	Time of attack.	Duration.
Three-quarters of an hour . .	Half-past 8, A. M. . .	First seizure, quarter of an hour.
Three-quarters of an hour . .	Half-past 9	Second, half an hour.
Half an hour	Quarter to 11	Third, three quarters of an hour.
Half an hour	Noon	Fourth and fifth, two short convulsions, quickly succeeding each other.
Quarter of an hour	1, P. M.	Sixth, quarter of an hour.
Three-quarters of an hour . .	Quarter to 2	Seventh, ten minutes.
Thirty-three minutes	20 minutes to 3	Eighth, twelve minutes.
One-hour, 25 minutes	25 min. past 3	Ninth, eight minutes.
Half an hour	5 minutes to 5	Tenth, twenty-eight min.
Twenty minutes	6	Eleventh, half an hour.
One hour and a quarter . . .	10 minutes to 7 . . .	Twelfth, three-quarters of an hour.
	10 minutes to 9 . . .	Thirteenth, twenty-three minutes.

The main indication in the treatment was to get the bowels to act, and to relieve the pressure on the brain. The child had been put into a hot bath by the nurse, which was repeated during the second attack, without apparent benefit. A leech was applied on the frontal bone, near the fontanelle; half a grain of calomel and a grain and a half of jalap, with a tea-spoonful of castor-oil, were given every four hours, and the lower part of the bowels repeatedly evacuated by injections of soap and water and castor-oil. The strength was kept up by injections of jelly, with a few drops of sal volatile or brandy in them. After the twelfth fit, the bowels acted for the first time from the higher intestines copiously; after which there was only one mild though long seizure, when they entirely ceased; the child went to sleep, and was perfectly well the next day, and has remained so ever since, without the slightest symptom of any return.

The whole case shows to what extent functional mischief may affect the brain and spinal column, excited by sympathetic irritation, without any inflammation or change of structure, for the fits ceased almost immediately after the operation of the medicine administered by the mouth; as, though the enemata emptied the large intestines, this did not have any effect upon the symptoms, the obstruction seeming to be in the *upper* portion of the canal.

The pressure produced upon the brain was such that respiration was entirely suspended during the greater part of the fits, and even the action of the heart could not be felt for more than ten minutes in the third and twelfth fits, and the child lay to all appearance dead. It was at such times that I proceeded to restore the suspended functions by artificially inflating the lungs, in the manner described by Mr. Terry—namely, by breathing into the mouth of the infant from my own, closing the nostrils, and compressing the thorax after each inflation; observing the natural periods of frequency as much as possible. I am quite convinced the child would have been lost, had it not been for the artificial aid thus afforded to nature in the severe struggle, till the offending matter was expelled. By means of the artificial respiration, the colour (especially of the face and lips) turned from purple to red, but still there was no breathing, till a convulsive gasp announced the termination of the fit.

I am aware that some have recommended a tube to be passed into the larynx, in preference to breathing into the mouth; and also many have objected to the employment of one's own breath, as the expired air is loaded with carbonic acid, and deprived of a portion (though a small one) of its oxygen. The success of the plan I employed, however, is quite sufficient to justify its use, and it is much more easily effected than by means of the tube, which has sometimes seriously injured the soft parts, and is too readily displaced. A purer air would no doubt be more proper, but unless its temperature could also be kept up to that of the human body, we should lose one of its restorative properties, of perhaps as much consequence as the other. In the cases where artificial respiration was kept up in animals under the influence of narcotic poisons, by Sir B. Brodie, as detailed in his Croonian Lectures, the temperature of the air employed was thus artificially elevated; but in the hurry and confusion of a still-born child or a convulsive fit, there is no time to make the necessary preparations. What I would most wish to insist upon, is the necessity of perseverance in such instances; and perhaps the history of the case I have given may induce others to persevere in the same manner *to the very last* (*lateat scintilla forsitan*), and thus perhaps, as in this instance, restore an only child to its anxious parents.—*Ibid.*

NITRATE OF SILVER IN SOME CUTANEOUS DISEASES.

To the Editor of the Medical Gazette.

Sir,—Since the publication of Mr. Higginbottom's Essay on the Use of Nitrate of Silver, cases have appeared, from time to time, in the *Medical Gazette*, and other periodicals, bearing testimony to its value, applied in the manner or to the class of affections in which it is recommended by him. If the following observations on its local use in certain cutaneous diseases possess sufficient interest to procure them admission into the pages of the *Gazette*, they are at your disposal. I am, sir, yours obediently,

2, *Argyll-Strret.* HENRY T. CHAPMAN.

Having been engaged, whilst house-surgeon to St. Bartholomew's Hospital in 1830, in testing the efficacy of the nitrate of silver in external inflammations, according to the method employed by Mr. Higginbottom, I was led to extend my experiments from erysipelas and inflammation of the absorbents first to cases of erythema nodosum, and afterwards to squamous affections of the skin. Before I proceed further, it may not be amiss, perhaps, to remind your readers of Mr. Higginbottom's mode of applying it. After cleansing the skin with soap and water, and drying it, the surface to be submitted to its operation is again moistened, and a solid stick of the lunar caustic is rubbed lightly over it once or twice, according to the delicacy of the skin, and allowed to dry. No dressing is required, and the part must be kept cool. The slight vesication produced after the first twenty-four hours soon subsides, and about the fifth day the black pellicle loosens and peels off.

The following are the results obtained by me. Of erythema nodosum two cases were treated; in one of them the redness and induration disappeared entirely after a single application of the caustic; in the other it was necessary to repeat it once more. My next experiment was made on squamous affections of the skin; lepra, namely, and several varieties of psoriasis.* I possess the details of more than a dozen cases successfully treated by it, and have since employed it with equal success in a great number of instances, of which I have neglected to take notes. I select two of those by me as examples of its action.

Thomas Henshaw applied, Oct. 8th, 1829, as an out-patient at St. Bartholomew's Hospital, with an eruption of psoriasis diffusa upon both arms. He has been teased with it about eighteen months. His general health has been always good.

November 23d.—During his attendance up to this time a variety of means have been tried; antimonials, mercurial preparations, and mineral acids, internally; locally, sulphuret of potass, as a lotion, and the diluted nitrated mercurial ointment; all without the slightest effect on the disorder. The worst part of the scaly surface was, therefore, rubbed over with nitrate of silver.

30th.—The cuticle having desquamated from the part acted on, has left the skin in a tolerably healthy state; the situation of several of the worst patches being merely indicated by a little roughness. A fresh portion was treated in the same manner, and Plummer's pill directed to be taken in five-grain doses every night.

Dec. 7th.—The second application has been as effectual as the first. No re-appearance of the disease over that part of the skin to which it was first applied. The whole remaining surface treated by the nitrate.

14th.—On examining the arms to-day, a roughness only of the skin, where the disease existed, is to be observed. No fresh scales have made their appearance. The pills to be continued.

Jan. 4th.—Came to show his arms, which are now quite free from eruption.

Mary Ghost, æt. 17, attended first as an out-patient, in August, 1829, with lepra vulgaris over the arms, legs, and body. It commenced by circular patches on the body, more than twelve months back, and has since extended over the limbs.

The liquor arsenicalis, hydrarg. oxymurias, pilul. hydrarg., submur. comp., warm baths, and other measures, have been employed up to this time, Dec. 14th, not only without improvement, but without arresting its further progress, and I determined to try the nitrate of silver, as in Henshaw's case.

Jan. 11th.—Applied it to the right arm, and on the 15 to the left.

19th.—Where the cuticle has peeled off, the scales have disappeared, leaving a slight roughness here and there; to these spots it was re-applied.

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* Dr. Graves, of Dublin, expresses an opinion unfavourable to the use of the nitrate of silver in psoriasis. See the Medical and Surgical Journal, March, 1835.

Feb. 1st.—The arms are perfectly cleared of the eruption. The back, and afterwards the legs, were treated in the same manner.

March 26th.—The lepra has wholly disappeared. As a precaution, I made an issue in the arm.

May 24th.—She applied for some aperient pill; no return of the eruption. Health better than it has been for some time.

Neither in the above cases, nor in any others, has the treatment been solely and exclusively local. Alteratives were given, and other general means always adopted preparatory to, and continued during, the employment of the nitrate of silver; but it is fair to attribute the immediate amendment to the local remedy, since the same measures had been persevered in fruitlessly, for many weeks in some instances. In psoriasis palmaris I find it necessary to soak the hand in warm water for some time before the nitrate can act with effect through the horny, ragged, and everted flakes of cuticle. The surface, also, bears rubbing over more freely, and three or more series of applications are required to restore the skin to its natural condition. It is very true that relapses occur sometimes; but the repetition of the process will again remove the disease, and the intervals between its recurrence, when it proves obstinate, are generally considerable.

Besides the squamous disorders above mentioned, I have made trial of the nitrate of silver upon other cutaneous diseases.

In porrigo, a strong solution of it is recommended by some practitioners almost as a specific. It was, I believe, a favourite remedy with Mr. Wilkinson, who acquired some celebrity for his treatment of this troublesome malady. I have tried it repeatedly both in solution and in the solid state, but in neither form was any permanent advantage gained by it.

In sychosis menti and eczemia, in both of which disorders, as well as in herpes zoster, its efficacy has been rated highly. I have been equally disappointed. In short, as far as my experience of its beneficial effects in diseases of the skin extend, it exerts a decided influence over those of a squamous character alone.

With regard to the management and curative powers of the nitrate of silver in erysipelas, inflammation of the absorbents, and other superficial inflammation, I have a few remarks to make.

Erratic erysipelas I have sometimes seen confined within the belt of blackened cuticle produced by it; but in severe cases it more frequently steals beyond the margin, and spreads as before. Nor has the strong solution, as recommended by Dr. Elliotson, been more efficacious.

In inflammation of the absorbents arising from punctures during dissection, &c. the nitrate, resorted to early, almost always proves completely successful; but when the case has reached the verge of suppuration, or after that has actually occurred, its operation may be highly injurious. The symptoms become masked, and fluctuation difficult of detection; for, instead of making its way to the nearest surface, the pus appears to shrink (if I may so express myself) from the coating of nitrate of silver, and spread to a more remote point in search of a vent; producing, in some instances, serious mischief by its separation of the tissues. The following case will exemplify this:—

—— Dunn, a man about 24, was admitted into St. Bartholomew's Hospital in the beginning of April, 1830, with inflammation of the absorbents along the inside of the knee and thigh, proceeding from a cut across the front of the leg, received a few days previously. The nitrate was applied, with speedy relief to the pain and heat, and in four or five days the cuticle peeled off, restoring to the skin its natural appearance. The next day a slight blush was noticed on the inside of the thigh, accompanied by trifling fulness; but the most careful examination failed in discovering fluctuation. The caustic was once more resorted to; but, before the period of the separation of the cuticle had arrived, a general fulness of the inside of the thigh became manifest. A poultice was immediately directed, and on the removal of the black coating, the presence of matter, deeply seated, was distinctly ascertained.

April 6th.—The abscess was opened, and more than half a pint of pus evacuated from a cavity dipping between the rectus and adductor muscles. This space filled, in the course of the succeeding twelve hours, with a coagulum of venous blood, which was renewed as fast as removed, distending the cavity to such a degree that the probe met with no obstruction to its passage near the inside of the neck of the femur, to within a short space of the back of the thigh; and the finger could reach, without difficulty, the soft parts which close the obturator foramen. A bandage and compresses were applied; a discharge of pus, free from blood, was soon established; his health, which had suffered much from sympathetic fever, improved daily, and the cavity gradually filled up and cicatrized. A stiffness of the hip-joint remained for some weeks after his discharge, which finally disappeared altogether.

In a second case treated by the nitrate, one of incipient sympathetic bubo, a considerable accumulation of matter formed insidiously beneath the blackened surface, and pointed behind the adductors, near the buttock.

Such results should teach us, therefore, to be cautious in resorting to this remedy where suppuration is impending.

It still remains to consider the principle of action of the nitrate of silver, upon which Mr. Higginbottom does not advance an opinion. Its effects under certain circumstances, as that gentleman observes, are clearly something more than those of a mere escharotic. Indeed, destruction of surface can scarcely be said to follow its ordinary application to the mucous membranes of the eye and pharynx. By its stimulant or astringent property, or some peculiar power resident in it, the calibre of the enlarged vessels is reduced, and they appear to recover their tone. It may exercise an influence over the nerves of the part: at any rate, two of the characteristics of inflammation, pain and heat, always yield to it.*

Supposing similar effects to be produced on the capillaries and nerves of the skin, the influence of the nitrate on cutaneous and subcutaneous inflammations will not be difficult to explain; and, reviewing its operation in the foregoing cases, such a supposition appears by no means destitute of foundation. In the successful instances of its employment in inflammation of the absorbents, we are justified in concluding that it directly controls the increased vascularity, &c., of the lymphatic vessel, and subdues the inflammation at once. In the cases where, from its tardy application, or from some other cause, it did not prevent the formation of pus, it appears to have occasioned the burrowing of the matter between the muscles, by checking the operations of the capillaries, and transferring the evacuating process, which would otherwise have been conducted at the dermal side of the abscess, to another part of the sac.

In several cases of small collections of matter about the throat and neck, as soon as obstruction to its external escape has been offered by the presence of the black pellicle, I have observed that the pus has been gradually taken up, and entirely carried off, by the absorbents—a practical point of some value in the treatment of these abscesses in females.

In squamous disorders of the skin, besides the separation of the loaded cuticle, the nitrate appears to correct the diseased action of the capillaries, on which the accumulation depends, and restore a healthy tone to the vessels.

This result, however, can never be expected, while the original source of the disease still exists in the system; and before the local remedy can produce any permanent benefit, constitutional measures must be steadily enforced. Some may exclaim that the cure, in that case, is unjustly ascribed to the nitrate; but is it not highly probable that the diseased product still continues to be formed *habitually*, long after the state of health giving rise to such an excretion has been completely rectified? In these affections, therefore, the nitrate of silver is only to be looked upon as an auxiliary to other remedial means, which must always occupy the foremost place.—*Ibid.*

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* I have lately heard the term "alterant action" applied to its effects on inflammation of the conjunctiva, by Dr. Kerst, of Utrecht.

NITRATE OF SILVER IN THE GONORRHŒA OF FEMALES.

To the Editor of the Medical Gazette.

SIR,—Having observed, in a late number of the *Medical Gazette*, a communication from Dr. James M'Cune Smith, regarding the use of the solid nitrate of silver in gonorrhœa of females, I have been induced to submit to you the following observations regarding that most valuable remedy, which I have made since 1st July last, whilst officiating as clerk to Dr. Hannay, in the Lock Hospital here.

I have seen the solid nitrate of silver employed in now upwards of forty cases of gonorrhœa, and shall make a few remarks on each of the effects produced in their order.

Pain.—When the caustic-holder is well lubricated with any simple ointment, its surface being free from all irregularities that may tend to injure the walls of the vagina—when no rudeness is used in its application, and, above all, when no ulceration of the parts to which it is applied exists—the pain is very trifling indeed; in many instances none whatever. Often have I seen amazement depicted in the countenances of the by-standers, on witnessing the placid and careless appearance of the patient after the operation. As a proof that the patients themselves think lightly of the pain, I may say that in not a few instances have I been strongly urged by themselves to apply it a second time, even after they were completely recovered, and generally on the day they received their dismissal. Their reasons for this singular request I could not for a long time obtain, until one, more forward than the rest, told me, "that as one application cured them so quickly, a second would perhaps make them proof against a future attack of the disease."

In the first cases in which I saw the nitrate employed, the patients evinced symptoms of great fear and seeming pain; these symptoms, however, were found to be equally severe when, instead of the caustic, a common silver catheter was introduced. After considerable investigation made by Dr. Hannay into the origin of this fear, sufficiently obvious reasons were made apparent. An example of these is given in the following report, taken from the journal, page 230.

"M. F. July 4.—Will not submit to treatment from fear. She says Dr. M'C. Smith frequently told her of the '*terrible roastings*' that Dr. Hannay would give her when he came on. She is therefore so terrified, that she would rather leave the house than submit to treatment, though told that nitrate of silver was not necessary in her case."

This terrifying system, according to the testimony of several of the patients, had also been exercised by Dr. S.'s successor in office. It would be needless, on my part, to make any comment on such conduct as this: it of itself speaks volumes.

Irritation.—Many individuals, I am aware, consider pain as a concomitant to irritation, and, I believe, it generally is so; but experience teaches me that it is not always the case. Patients whom I have interrogated every hour, for hours after the application of the nitrate, as to whether they suffered much pain, have generally answered me, "No, not much; not worth the speaking about;" and the like,—yet on the following day displayed some irritation. In one instance, owing to prolapsus vaginæ, half of the caustic cylinder (about a drachm) was broken in the vagina. Knowing, however, that no evil consequences followed similar accidents at a previous time, it was allowed to remain. Next day there was very considerable irritation of the external parts; but even in this case the pain was comparatively slight.

In those cases where the irritation is any way severe, the patient is ordered to inject tepid water, which always allays it in two or three days.

Efficacy in Suppressing the Discharge.—It is completely established in my mind, from observation, that all cases of uncomplicated gonorrhœa in the female may be cured by the solid nitrate of silver in from *three* to *ten* days. Strangers visiting the Lock, after witnessing the examination of from 25 to 30 patients, have often asked me, with astonishment, whether we had no case of gonorrhœa at all in the house? The answer generally was—not a single case. It is seldom, indeed, that we have an opportunity of exhibiting a case of gonorrhœa to a stranger, unless it happens that a new patient labouring under it is admitted at the time.

Relapses.—The number of relapses that required a second application of the nitrate, amounts to about eight or ten per cent. There is, however, every reason to believe that the manipulation, in these cases, was improperly done, as since the latter end of July no instance of relapse has yet occurred, I having seemingly, from experience, become more perfect in the mode of its application.

In conclusion, I would remark that Dr. Hannay certainly deserves the highest meed of praise for his introducing a remedy so efficacious, and at the same time so economical: efficacious, from its producing a cure in about as many days as it formerly occupied weeks—and economical, from the short space of time the patients are kept in the hospital, independent of the small cost of the remedy. And I can now confidently assert, from fifty cases in my own experience, that it is devoid of the shadow of an evil.

You will confer on me a particular favour by giving the above observations a place in an early number of your most valuable Gazette.

I am, sir, your most obedient servant,

Glasgow, 30th September, 1837. JAMES CROSS.

ON THE TREATMENT OF CHOLERA.

BY ROBERT J. GRAVES, M.D.

As spasmodic cholera seems likely to fix itself permanently in Europe, and has lost nothing of its original malignity, every practitioner is imperatively called on to communicate whatever he thinks may prove serviceable in its treatment. This disease prevailed epidemically to a fearful extent in Dublin, in 1832 and 1834. In the former year my practice among cholera patients was very extensive, but by no means successful. In 1834, about the latter end of July, when the disease was raging most violently among the middling and better ranks of society, and at a time when I had very frequent opportunities of treating it, too often had I to regret the inefficacy of the means employed, and though aided by the advice of the most eminent members of the profession in Dublin, too often had I to witness the loss of cases, not apparently very dangerous when they began, and which seemed to leave full time for the employment of remedies, if such were known. Under these circumstances I lost an intimate and highly esteemed friend, Surgeon Ryan, of Camden-street. He was a young man, of vigorous health, and the late Mr. M'Namara and I saw him many hours before any symptoms of collapse had set in; calomel and opium, blisters, frictions, sinapisms, stimulants, and all the most approved medicines, were diligently tried, but in vain; and from that moment I resolved to lay aside the mercurial treatment, which had so very often disappointed my expectations, although pushed to the greatest extent, and applied with the greatest activity and perseverance. During the preceding months of May and June, I had treated several cases of diarrhœa in fever with large doses of the acetate of lead, according to Dr. Bardsley's plan, and I had had frequent opportunities of admiring the efficacy of this salt in checking profuse alvine discharges. Just as Mr. Ryan died, and while my mind was filled with regret at our failure in his case, I was called by Dr. Percival Hunt to see a lady in Nassau-street, labouring under dysentery; I advised the free use of acetate of lead, and with marked success. Immediately after, I saw a case of cholera still in the stage of premonitory diarrhœa, or rather just passing from the bowel complaint into the fully formed disease. I tried the acetate of lead boldly, and with the happiest success. Thus encouraged, I applied this new method of treatment in every case to which I was called, and I was employed both night and day in visiting cholera patients, and every hour gave me additional proofs of the efficacy of the remedy. My formula was as follows:

℞ Acetatis Plumbi, ℈j.; Opii., gr. j. ♏. fiat secundum artem massa, in pilul. xii. dividenda.*

The premonitory diarrhœa has almost invariably stopped by taking one of these pills, at first every hour, and as the stools became less frequent, every third or sixth hour, according to circumstances. When the vomiting, spasms, and the state of collapse had begun, it was necessary to give a pill every quarter of an hour: after a couple of hours the effect of the pills became perceptible, in a diminution of the serous evacuations upwards and downwards; then the pills were given only every hour, and as the symptoms yielded they were given less and less frequently, and could in general be laid aside altogether before twenty-four hours. In some it was found necessary to give the acetate of lead in solution, combined with a little vinegar and minute doses of acetate of morphia. Minute doses of opium were useful; any thing of large doses hurtful. Mr. Parr, the able and respected apothecary of the Meath Hospital, was saved by acetate of lead, after the usual astringents, combined with large doses of opium, had been fully tried. He was found by me to be sensibly under the narcotic influence of opium, but the peculiar symptoms of cholera had not been thereby checked. Many took more than forty grains of the acetate of lead in twenty-four hours; it usually darkened, or even blackened, the alvine discharges, before they ceased altogether. Were I to enumerate all the cases of violent cholera that yielded to this treatment, I would be led into a tedious but not an uninstructive detail; I shall, therefore, merely refer to some of the most malignant cases, where the recovery of the patient was undoubtedly owing to the bold exhibition of acetate of lead, and where the success of this practice was acknowledged by witnesses the most unexceptionable and competent.

Mr. Peile, Deputy Inspector General of Hospitals, and Staff-Surgeon Colclough, will not readily forget the apparently hopeless case of an assistant-surgeon in the army, whose life was thus saved. Dr. Marsh was so struck with the effects of this medicine in the case of a young gentleman residing in the house of the Rev. Mr. Bermingham, Charlemount Mall, that he did not hesitate to my trying the same remedy in the case of Mr. Kerin, then President of the College of Surgeons, whose case seemed to be desperate. Mr. Maturin, son of the celebrated writer, was attacked in the most violent manner, and, indeed, neither I, Mr. M'Namara, or Mr. King, had any hopes of his recovery; yet he too was saved. Nothing could be more appalling than the state of Mr. Wilson, of Charlemount Street. The effects of the acetate of lead in his case were so striking, that Mr. Mulock immediately adopted the plan of treatment, and he assures me that he has thereby saved a great number of very bad cases. Dr. Davis, surgeon of the 18th, or Royal Irish regiment of foot, witnessed with extreme interest the acetate of lead tried, and tried successfully, in a very bad case at the Richmond barrack. Equally successful results followed the trial of this remedy in the hands of other practitioners, both in Dublin and various towns in Ireland, during the epidemic of 1834.

After I found out the benefits resulting from the employment of acetate of lead, I no longer desponded when called to cases of cholera, knowing that in the great majority of instances the disease would yield. Of course there are cases of cholera which admit of no treatment, and which an experienced eye will at once recognize as fatal; they occur generally among the aged, or the very young, and are fatal in the course of a few hours, often without any premonitory diarrhœa. But this constitutes no valid objection to the practice; for in what disease do not cases occur which baffle all our efforts? Fever, scarlatina, pneumonia, croup, inflammation of the brain, of the bowels, and many other affections, occasionally exhibit a degree of intensity which renders them as intractable, and as speedily destructive, as even the worst cases of cholera. But does this occasional intensity and occasional intractability, of certain cases, lead us to regard the diseases above enumerated as beyond the reach of medicine and the control of the physician? By no means; for although we feel our efforts in the particular cases specified to be unavailing, yet we also feel that where the intensity of these diseases is less, we can save numerous lives that would otherwise be lost; so it is, likewise, with cholera.

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* It may be well to remark, that the most convenient way of making these pills is to add five or six grains of powdered liquorice to the scruple of acetate of lead. They may be readily mixed into a mass by means of mucilage of gum Arabic.

I may remark, that since 1834, cases of true Asiatic cholera occur sporadically every now and then in Dublin, as I believe happens also in most large towns in Europe once visited by this pestilential epidemic. Of these I have lately seen two decided cases; both were likewise visited by Mr. Mansfield. Both were saved; and yet one was so violent as to have reduced a powerful young man to a state apparently hopeless, in the course of three hours.

I cannot conclude without imploring the profession, in every part of the world where cholera prevails, to give my plan of treatment a fair trial, for I feel confident of its efficacy.—*Lond. Med. Gaz.*

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SURGERY.

LITHOTRIPSY.

Dr. Randolph's Cases.—In the second number of this Journal, volume first, we gave an abbreviated history of fourteen cases of stone, in which Dr. Randolph had performed successfully the operation of lithotripsy. To this list we have the pleasure of adding three more, the results of which were equally satisfactory.

Case *fifteenth* was of a medical practitioner from New Bedford, Massachusetts. He had had an attack of paraplegia, in July, 1832. In June, 1835, he suffered from acute cystitis; and in the autumn of 1836, he satisfied himself, after repeated introduction of a sound, that there was a stone in his bladder. He determined, in consequence, to visit Philadelphia, and place himself under the care of Dr. Randolph.

On the 15th of December, 1836, this gentleman sounded his patient, and readily detected the stone. "The bladder itself appeared very much thickened and irregular, diminished in size, and communicating to the sound a cellular arrangement, as if bands had been drawn across it, or subdivisions of its cavity had taken place. Upon being irritated, it contracted spasmodically, with so much force that it was impossible to turn an instrument in it." Although the patient had very little control over the passage of the urine, and it generally passed involuntarily, yet it was discharged with considerable force.

On the 21st of December, Dr. Randolph introduced the instrument, (the *brise-pierre* of Jacobson,) into the bladder, and without much difficulty caught and broke the stone twice. For several successive days calculous matter was discharged with the urine. On the 28th, the operation was repeated with success; the stone more broken, and subsequently a great deal of calculous matter, with fragments of considerable size, were voided.

January 2d, 1837. The operation was again performed with a different form of the *brise-pierre*. On the 11th, 16th, and 25th, similar introduction and use of the instrument with the like results. February 12th, 23d, and 27th, same report. On the 12th, it was found that one of the fragments had passed into the urethra, and as it could not be extracted without exciting much irritation, it was returned into the bladder. On the 9th of March, the surgeon found but one small fragment remaining, which he broke, and it passed off immediately after the operation.

The imprudence of the 'patient,' in attempting himself to get rid of a fragment of calculus in the urethra, by passing a curved sound behind it, gave rise to sundry unpleasant results—the passage of the foreign body into the corpus cavernosum, subsequent swelling and irritation, inflammation and suppuration, and finally its passage externally through an opening in the abscess made by a lancet. There was also a swelling of the testicles, and suppuration of the cellular texture of the scrotum. Dr. Tompkins, in an account of his case, which he published in the Boston Medical and Surgical Journal, states, that the fragments "were expelled very readily, till by imprudently attempting to extract some large pieces, I wounded the urethra, producing stricture for a time, which prevented any large fragments from passing out, otherwise I should have been cured much sooner."

The report of this case is by Dr. James M'Crea.

Case *sixteenth* was of Mr. William Y. Birch, who has left large legacies to various charitable institutions, especially to that of the Blind. The instrument was introduced, and the stone broken at six different times, from April 17th to May 21st, 1837.

On the 25th of May, about midnight, Mr. Birch was seized with a spasmodic affection of the throat, accompanied with a considerable difficulty of breathing, and total inability to expectorate. Relief was soon obtained from this oppression; but the patient gradually sunk, and expired on the 2d of June. No pain was felt in, nor complaint made of the bladder during the period between the last operation and the death; or, as stated by one of the consulting physicians, "no complaint was made or difficulty occurred in the performance of the function of urination."

On dissection, "the bladder exhibited no evidence of recent injury; and none but the usual appearances resulting from the chronic irritation produced by stone." The urethra was healthy.

This case is reported by Dr. H. M'Murtrie.

Case *seventeenth* was operated on May 7th and 14th, with the effect of a complete crushing of the stone, and its subsequent discharge. No inconvenience or constitutional irritation was suffered from the bladder. The disease had been of six months' duration only.

Dr. Randolph concludes his communication,* by a caution against attempting to extract fragments of calculus through the urethra. Mr. Roux, of the Hotel Dieu in Paris, not long since found his instrument with the fragment so fixed in the urethra, that it could not be moved one way or another; and it became necessary to make an incision into the urethra, and extract the fragment through this opening, before the instrument could be withdrawn.

Dr. Smith's Cases.—Six cases of lithotripsy, successfully performed by Dr. N. R. Smith, Professor of Surgery in Baltimore, are recorded by this gentleman himself.† The instrument used was Jacobson's. Of these cases, one was of a child of the tender age of one year and ten months; another, two years and eight months; two, each seven years.

Dr. Smith informs us that he generally operated in the empty bladder. He thinks himself safe in doing this with the instrument of Jacobson; but he would not with that of Civiale or of Heurteloup. Of course he joins Dr. Randolph in the favourable opinion which this gentleman expresses of Jacobson's *brise-pierre*, and is at issue with Dr. Gibson, who prefers the lithotripteur of Heurteloup, and calls Jacobson's a 'dangerous weapon.' *Non nostrum*, &c.; but we will say that, for our own particular use, should we be ever called upon to choose, our voice would be for Jacobson.

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* American Journal of Medical Sciences, Nov. 1837.

† Am. Journ., *ut supra.*

Dr. Smith concludes his paper by the following remarks:—

> "Queries are often rather absurdly made in regard to the comparative merits of lithotripsy and lithotomy. In regard to most cases of stone, they can be compared with no more propriety than can lithotripsy and amputation. Where the calculus is small and the bladder healthy, no one can hesitate for a moment to pronounce lithotripsy the eligible operation; indeed, in such a case lithotomy is unnecessary, cruel, and perilous. But on the other hand, when the stone is very large and the bladder irritable, it is equally manifest that lithotomy is the only operation which science and humanity can recommend. Cases will, however, occur, in which it will be difficult to decide to which operation preference is to be given.
>
> "To how large a proportion of cases lithotripsy is applicable, the experience of surgeons has not as yet determined. As the operation becomes more generally known and practised, the proportion favourable for lithotripsy will undoubtedly increase, as patients will submit to lithotripsy while the calculus is small.
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> "Within the last two years there have occurred in my practice in the city of Baltimore, twelve cases of stone. In one half of these I have performed lithotripsy, and in the remainder lithotomy. In one of the latter I attempted lithotripsy, but was compelled to abandon it. These, I believe, are all the cases which have occurred in Baltimore in that time.
>
> "It will be observed that in two or three of the cases related, my patient suffered in no small degree from the lodgment of fragments in the urethra. I flatter myself that I shall hereafter successfully provide against this evil, by effecting a more perfect comminution of the fragments, and by a contemplated improvement in the urethra forceps employed for the extraction of foreign bodies from the urinary passage, and of which I shall give a description in some future number of this Journal."

SURGICAL CLINIC.

BY Dr. HORNER.

Cases are recorded with pertinent remarks and commentaries, by Dr. Horner,* the result of a tour of surgical duty at the Philadelphia Hospital, Blockley.

Leucorrhœa.—We find a treatment of leucorrhœa mentioned as the result of a suggestion made in France. It consists in cleaning out the vagina well every day with some abluent, and then pushing it full and systematically with lint, by the aid of a speculum; the first step of the dressing being to keep off the lips of the womb from the vagina, by filling up the connecting depression.

Two cases are mentioned in which this plan was tried. In the first of which there was an ulcer on a lip of the womb; the patient's state improved rapidly under the treatment. The second "was cured very rapidly and perfectly, by the daily plugging of cotton, and cleansing with soap and water. The treatment lasted about two weeks, at the end of which time she was seized with symptoms of inflammation of the womb, which also got well." Dr. Horner is not able to say whether the latter disease was a consequence of the treatment, or merely a concomitant of the other.

A third case was cured in eighteen days, and without accident, by daily plugging with cotton, and washing the vagina clean.

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* Am. Journ., *ut supra.*

Whilst waiting for additional proof, we are inclined to attach more importance to the regular and frequent ablution of the vagina and os tincæ, by simple or slightly medicated injection, than to any fashion of plugging up this cavity.

Syphilis.—Dr. Horner informs us, that in several cases of secondary syphilis, the cure appeared to him to be evidently accelerated by mercurials. The quantity given did not produce salivation. He prefers the blue pill, corrosive sublimate, and the iodine of quicksilver.

Calculus removed by Lithotripsy.—Under this head Dr. Horner relates the case of a man, thirty-six years of age, who had symptoms of the stone since he was sixteen. On the 7th of July, 1837, the patient having been for a week before kept on a low diet, the surgeon injected four ounces of tepid barley water into the bladder, and then introduced Heurteloup's instrument, with which, in a sitting of from fifteen to twenty minutes, the calculus was reduced to fragments of various sizes, some of them to that of sand. "The operation was attended with a considerable discharge of clotted blood, and some pain, magnified, however, by the timidity of the patient. The procedure of the operation was partly by striking with a hammer, and partly by screwing up the instrument." Jacobson's *brise-pierre* introduced immediately after the other was withdrawn, could not be used, on account of "the refractory state of the bladder," without risk of injuring the neck of the latter, and it was accordingly brought away.

There was some fever on the following day, with quick pulse and pain in the hypogastric region; which were abated by bleeding, (sixteen ounces,) from the arm, and the neutral mixture. Some sabulous matter was discharged this day.

On the 9th his testicles and epididymes became swollen and painful, and forty leeches were in consequence applied to the scrotum. On the 14th, the symptoms having disappeared, Dr. H. introduced Heurteloup's instrument, and in a few minutes comminuted several of the large fragments. A considerable quantity of calculous matter was immediately discharged, and continued to do so during the day.

On the 17th, the third and last operation was performed. "An examination on the 21st found him with his bladder perfectly freed from calculus, and without more than a healthy sensibility."

In *Vesico-Vaginal Fistula,* Dr. Horner prefers "to bring the *womb* so far down in the vagina that its anterior face may be so fixed as to supply the loss of the *inferior fundus* of the bladder and *its neck.*" This suggestion was acted on by the use of an apparatus, described by Dr. H., for two days. Obstacles interposed by the untractableness of the patient, prevented further treatment after this period.

Recto-Vaginal Fistula, treated by division of Sphincter Ani Muscle.—A case is related by Dr. Horner, in which, carrying out the above idea of his, he pared away the callous edges of the fistula, fixing the opposite sides together longitudinally by two stitches, and then dividing the sphincter ani muscle, so as to prevent the possibility of the stitches being torn out in defecation.

Here again a paroxysm of violence and indocility was interposed to mar the success expected from the operation.

CONGENITALLY ENLARGED TONGUE REMOVED,

BY DR. THOMAS HARRIS.

Whilst in the vein of surgical reporting, we must notice what we had proposed to do before now, the case of congenital enlargement of the tongue, recorded by Dr. Thomas Harris, and which he removed with entire success.

The subject of this disease and deformity was nineteen years of age, a native and resident of Tennessee. But we shall give the appearances which presented themselves, and the details of the operation, in the language of Dr. Harris himself.*

"When I first examined the case, the tongue projected beyond the upper incisors three inches—circumference six inches—vertical thickness one inch and a half. The tongue exhibited a violet colour; was of a hard and incompressible consistence, covered with a dark slimy secretion, and that portion of it without the mouth was much larger in volume than that within. The weight of the tongue pressing continually on the inferior incisor and canine teeth, gave them a horizontal direction forwards; and at the same time drew the os hyoides and larynx upwards and forwards.

"On examining the inferior maxilla, the rami was found much shorter than natural; half an inch at least less in length than that of his brother, who in all other respects was of the same size. The angle of the jaw was unusually obtuse, and the molar teeth were rather longer than natural. By these alterations in the conformation of the parts, the patient had so far overcome the inconvenience arising from his projecting tongue, that the molars could be readily brought in contact, and thus the process of mastication could be performed, and deglutition effected almost as well as if no deformity existed. He was obliged, it is true, to cut his food in small pieces, and introduce it at the side of his mouth.

"Except during the act of eating, the saliva ran constantly from his mouth, to catch which, and to conceal the deformity, he was obliged to wear a silk handkerchief over his mouth and around his neck.

"I decided to perform the operation, but as the patient was somewhat feverish, arising from his long journey and the heat of the weather, it was postponed for a week. As the inferior incisor teeth could not be restored to their natural position, I deemed it prudent to immediately extract them. In the presence of Drs. Horner, Barton, Randolph, Butler, and several medical students, the operation was performed on the 26th of May. I first elevated the tongue, and dissected it from the floor of the mouth, about three-fourths of an inch behind the anterior part of the jaw, and then introduced a strong straight bistoury, commencing where the first incision terminated, and pushed it through the organ between the median line and the left raninal artery, and drew it forward and laterally, so as to form the left flap, terminating at a point corresponding with the teeth. After the divided artery was secured by a ligature, the bistoury was again introduced in a corresponding position on the right side, by which the opposing flap was made; the artery was secured, and then the intervening space was divided by strong scissors. The cut in the tongue resembled in form the letter V inverted. In performing the operation in this manner, I had perfect command of the tongue until after the blood-vessels were tied. The flaps were now approximated, and maintained in this state by means of three interrupted sutures.

"A pointed well formed tongue was thus made, and of the ordinary length. After the operation the patient complained of a burning, excruciating pain in the tongue; and this organ exhibited a tumid and livid aspect, which threatened gangrene. By abstracting a few ounces of blood from under the chin, and by the topical application of kreosote these symptoms were relieved. On the fourth day the ligatures were removed, and on the fourteenth the wound was entirely healed.

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* Am. Journ. of Med. Sciences, May, 1837.

"In consequence of the shortness of the rami of the jaw, and the alterations of its angles, the incisor teeth were separated an inch and a quarter, while the molars were in contact. In order to facilitate the approximation of the anterior part of the maxillary bones, several of the molar teeth were drawn out, which overcome nearly one half the separation, and at the expiration of two months, by means of pressure, the distance was reduced to less than half an inch."

"I received a letter from my patient dated August, 1836, more than a year after the operation, in which he states, that his jaws are nearly closed—all deformity is removed—that he articulates distinctly—is in excellent health and spirits, and then engaged in his studies in college.

"This case is similar in all resects to that of Margaret Lawson, which I published in the year 1829 in the seventh volume of the American Journal of the Medical Sciences; except that this one was congenital, and the former commenced at four years of age."

ACUPUNCTURE IN HYDROCELE, AND IN ASCITES.

To the Editor of the Medical Gazette.

Sir,—Having in a former letter hinted that the puncturation for the radical cure of hydrocele differed in some respects from that employed in the palliative treatment, although I have seen radical cures take place from the simple operation of a single puncture, yet, as acupuncture is not a radical cure in *all cases*, I beg to submit to my professional brethren the result of my own experience.

My method is to make a single puncture twice a week, for the first few weeks, so as to keep the tunica vaginalis in a collapsed state, and to bring on a healthy instead of a morbid secretion: by so doing, I find that the disposition to secrete water diminishes, and, therefore, if on examination I find only a drachm of fluid, I puncture. By pursuing this method, and employing at the same time the under-mentioned ointment* twice a-day, a radical cure is effected very speedily in recent hydrocele; but when the hydrocele has been of ancient date, the tunica vaginalis is so thickened that, although the fluid is absorbed, the parts do not appear to diminish, the thickening of the part preventing any evident contraction. Our object ought to be to simplify as much as possible the operations of surgery, and if we are desirous of emptying the fluid at once, it can be done by a grooved needle without a canula; thus avoiding all unnecessary employment of instruments.

M. Velpeau, it seems, according to the accounts in the medical journals, tried puncturation in three cases of hydrocele without effect. Now if the puncture is made properly (and this can only be ascertained by a drop of water following the withdrawing of the needle,) the absorption of the fluid will inevitably take place; although, where there is great thickening of parts, the volume of the scrotum is not so visibly lessened as in other hydroceles.

A valuable life ought not to be endangered by doubtful or hazardous experiments, although they may in some cases effect a speedy cure. Injections are strongly recommended, but they have frequently been productive of very serious, indeed fatal, results: it matters not what substance is employed, whether simply cold water, or wine and water, or the alcoholic solution of iodine so much lauded by M. Velpeau; the beneficial effects of which may, perhaps, depend more upon the alcohol itself than upon the iodine with which it is combined.

In a former letter I stated that Dr. Davis saw three cases of empyema get well after puncturation. I have now the additional satisfaction of recording the experience of Mr. King, who has had the courage to step out of the beaten track of routine practice, and, from analogical reasoning, to employ a new and, as it seems, a successful mode of treatment in *ascites*. Mr. King writes as follows:

"6, *Maddox-street, Sept.* 25.

"Dear Sir,—Having, in conjunction with a confrère in the profession (Mr. L'Estrange,) applied acupuncture with some advantage to the treatment of ascites, I deem it right to make you acquainted with the circumstances of the case.

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* ℞ Hydriodatis Potassæ, ʒss.; Ung. Cetacei, ℥iss. M. f. unguentum.

"The subject of the operation is a tall man, of a constitution originally strong, but now a good deal worn, and I think between 50 and 60 years of age. The disease showed itself in July, and the patient remained a fortnight without medical aid. The man sent for Mr. L'Estrange, who, by the skilful administration of diuretics, obtained some amelioration. We first met in consultation on the 16th of August, and, after a few days, added mercury to the other means employed. As this was without benefit, and the respiration seemed much impeded at night, we thought of tapping; but the patient's strength was at so low an ebb that we did not feel certain that he could bear it. Upon deliberation, we were of opinion that some benefit might accrue to him from puncturing the abdomen with a long needle (of the size used for darning,) so as to give the effused serum an opportunity of oozing from the peritoneal sac into the subcutaneous cellular tissue. The first puncture was made Sept. 2d, on the right side, midway between the umbilicus and spine of the ilium, and was followed, as I withdrew the needle, by the issuing of three or four drops, one by one, of yellow serum. September 3d, another was made, anteriorly to the first. September 4th, there was a marked diminution in the tension. The abdomen was quite altered to the touch; the cellular tissue, which, in this region is two inches thick, presenting an œdematous state, in lieu of the tense unyielding condition it was in prior to the operations. A third puncture was made between the other two. September 7th, I made two more punctures.

"9th.—Amelioration still marked, and the patient's general health is improving.

"As every operation was followed by some amendment, I made three punctures on the 11th, three on the 16th, three on the 18th, five on the 20th, six on the 21st, six on the 22d, and seven this day. The result may be stated to be a diminution of four inches in the circumference of the abdomen, and an amendment of the patient's general health, such that he is able to walk out.

"My present opinion is favourable to the employment of puncturation as a palliative. In some cases of ascites and empyema, when there is no organic disease, might not a cure be obtained by it?

"If you think it may be useful to make this case known to the profession, you are quite at liberty to publish this letter. Yours very truly,

To D. Lewis, Esq." T. King.

As the hydriodate of potash is an excellent adjuvant to puncturation in the cure of hydrocele, perhaps it may be found to be equally efficient in other dropsies. The field is open for further experiments.—I remain, sir,

Yours truly,

28, *Artillery Place, West, Bunhill Row, Sept.* 26, 1837. D. Lewis.

OPERATIONS AT ST. GEORGE'S HOSPITAL.

Encysted Tumours of Scalp—Removal.—Diseased Wrist—Amputation.—Division of the Tendo Achillis for Club Feet—Novel Operations (?).—Fatty Tumour—Removal.—Hernia—Strangulation nine days—Mortified Bowel.

On Thursday, October 12th, there were four operations: three by Mr. Keate, and one by Mr. Walker.

Mr. Keate first removed three encysted tumours from the head of a man who had had some already taken away, and one or two more were still left to be removed on a future day. One was of some size, and as the skin adhered much to it, a portion was taken away with the tumour, which adhered so as to require dissecting out, and bled a good deal. The others were turned out easily by pressure at their sides after the scalp had been divided and the surface of the cysts exposed.

M. Keate next removed the fore-arm of a man by the circular operation near the wrist, in consequence of disease of twenty years' duration; the joints of the wrist and carpus being extensively ulcerated, with much swelling around them, and very great pain on the parts being at all moved. The case has done well.

The next patient brought in was a little boy of six years of age, whose feet had been deformed from birth; the foot being in both cases turned in, and rotated upwards and inwards, while the toes were at the same time kept pointed by contraction of the tendo Achillis. Mr. Keate inserted a narrow knife, with a flat surface between the skin and the tendon; then turning the edge towards the tendon, it was cut across by the knife, the heel being at the same time drawn downwards, so as to separate the divided ends from one another. An instrument was then fastened upon the foot, so as to enclose it in a strap and kind of shoe, while an iron went up the leg on each side, and was buckled round the leg just below the knee. The shoe part was so contrived as to stretch the back of the leg, and allow of its being still more extended, if necessary, afterwards. The little fellow bore both operations without a single exclamation, and hardly even moved during the time. Mr. Keate afterwards explained the case to the students, and remarked that he had lately seen or heard of this operation having been revived as a new discovery, but that he had often seen it done, and as long as *five-and-thirty years* ago; and that he believed it generally succeeded very well.

A woman then came into the theatre, who had a fatty tumour, of the size of a small melon, on the back of the left shoulder, which was removed by Mr. Walker. He made a deep cut through the skin, and half way into the tumour, which he then dissected out with the knife, removing some of the fascia and fibres of the trapezius muscle, which adhered to the tumour. There was a good deal of bleeding from the operation, so that the wound was not dressed till some time afterwards, which, indeed, was the case also with the two first patients on whom Mr. Keate operated, in order to avoid secondary hæmorrhage. Mr. Walker made some remarks on the nature of fatty tumours, which he said were perfectly innocuous, and that they were generally unaffected by medicine, though he had seen one case in which a large fatty tumour of the chin had yielded to Liquor Potassæ in large doses, and that there had been no return.

On the following Monday, October 16th, Mr. Hawkins operated for a case of strangulated femoral hernia, in a woman between thirty and forty years of age, the strangulation having taken place on the morning of the Sunday week preceding, so that it had now been strangulated *nine days.*, She had been constantly sick since that time, during which she had done nothing except taking six pennyworth of castor oil, and on her admission was in a very low state, apparently suffering much pain, with the bowels so distended that the turns of the intestines could be seen through the abdominal muscles, especially at intervals when the pain came on most violently. The hernia contained a small piece of bowel, intimately adherent to the sac, especially in front, and so lacerable that it gave way, and a little milky fluid escaped. Attempts were made to close the opening by ligature, so as to return it into the abdomen, but the mortified bowel would not hold the silk; it was therefore opened freely, and fastened to the edge of the opening after the stricture was divided. When this was done, some fluid fæcal matter escaped, after which a poultice was applied to the wound, and camomile fomentation to the abdomen. At nine o'clock, P. M., five hours after the operation, the patient seemed more comfortable, and lay quietly in bed on her back, instead of constantly tossing about, and had not been sick; no further evacuation, however, had taken place, nor had injections brought away any thing from below the strictured part. Mr. Hawkins passed his finger into the bowel, which seemed to be free; and as there did not appear to be any mechanical impediment, five grains of calomel were given twice, with two drachms of Epsom salts, in infusion of roses and mint-water, every three hours, and some beef-tea and arrowroot were directed to be given. The next morning, at 7 A. M., about a pint of fluid fæcal matter had passed by the wound, and the patient felt much more easy and composed, the pulse being only 102, instead of being as rapid and quick as before the operation, and she had slept several times for a short time. At 1 P. M., she seemed considerably improved, a good deal of fæcal matter coming away, and the abdomen being soft and not so distended. She had been sick once after some arrow-root, but had no pain scarcely in the belly, and was cheerful and free from anxiety. A grain of opium, with three of calomel, was given, and the mixture repeated at longer intervals, and the abdomen bandaged with flannel.

On the whole she was much better than could have been expected after so long a strangulation, affording some ground to hope that she might recover, but the amendment of twenty-four hours is far too short a period to be sanguine about after so protracted a strangulation. We shall endeavour to give the sequel of the case in our next number.—*Lond. Med. Gaz.*

OBSTETRICS.

A REPORT OF THIRTY-FOUR CASES OF PUERPERAL CONVULSIONS.

By Robert Lee, M. D., F. R. S.

Lecturer on Midwifery at St. George's Hospital, and Physician to the British Lying-in Hospital.

Case I. ——, æt. 22; first pregnancy; ninth month; unmarried. Edinburgh, 1816.—Numerous violent fits of convulsion at short intervals, without a return of consciousness, for twelve hours. Orifice of uterus soft and dilatable; but no sign of labour. The pulse was rapid and feeble. The fits continuing, with coma, the child was turned without difficulty and delivered. Death in six hours. Blood-vessels of brain distended. No other morbid appearance observed.—V. S. ad ℥l.; head shaved; cold lotion; calomel; enemata; artificial delivery.

Case II. ——, æt. 26; first pregnancy; ninth month. 12th July, 1823.—Fifty hours in labour. Head of child low in the pelvis. Vagina and perineum rigid; pulse full and strong; face flushed; occasional incoherence and slight convulsive tremors of the face and extremities. Venesection, followed by two severe fits of convulsion and insensibility. Unsuccessful attempts to deliver with the long forceps. Craniotomy. No fit after delivery. Consciousness soon returned. Uterine inflammation. V. S. ℥xviii. Cathartics. Cured.

Case III.—Mrs. L——, æt. about 26. January 22, 1827. First pregnancy; seventh month. Eight weeks before delivery suddenly seized with coma, from which she recovered after copious V. S., &c. Headache, giddiness, and partial loss of speech, but consciousness and memory have remained. Slight hemiplegia of the right side. Pulse 90. Went to the full period; labour natural. In a few hours, convulsions, coma, dilated pupils; retention of urine; and she died on the 29th. Upper surfaces of both hemispheres partially coated with a thick firm layer of lymph. Softening of the brain below. The veins distended with firm coagula. Ventricles filled with serum. The ventricles did not collapse after the fluid had flowed out. Copious V. S. and cupping, head shaved, cold lotions, and blisters; cathartics; low diet.

Case IV. ——, æt. 20; 1827. First pregnancy; seven and a half months; unmarried.—Had attacks of epilepsy for several years during early life. Headache, drowsiness, loss of memory; paralysis of right inferior extremity after a slight fit of convulsion and coma. Labour natural; child alive. No return of symptoms after delivery. V. S.; cupping; head shaved; cathartics; low diet. Cured.

Case V. ——, æt. 24, 21st June, 1828; third or fourth pregnancy; seven and a half months.—Subject to epilepsy in early life. After suffering for several days from an uneasy sensation of weight in the head and giddiness, was suddenly attacked with convulsions, of which he has had several fits, and has little or no consciousness in the short intervals. Os uteri closed. No symptom of labour. 2d June: no fit, but considerable stupor continues. Pulse 80; copious alvine evacuations. 24th; no return of convulsions; and she went to the full period, and was safely delivered of a living child. V. S. ℥xx.; head shaved; lotions; enemata; cathartics; V. S. ℥xii.; low diet. Cured.

Case VI. ——, æt. 18, 24th Jan., 1829; first pregnancy; 9th month.—Delivered at 11 A. M.; labour natural. The expulsion of the placenta was soon followed by a strong fit of convulsion. V. S. was immediately employed. At 4 P. M. frequent severe fits, without any intervals of consciousness; V. S. repeated. At 8 P. M. the fits and stupor continued, when forty drops of laudanum were prescribed in my absence.

25th.—Fits continue; twenty drops of laudanum, and sinapisms to the legs, were then ordered by her medical attendant.

26th.—Several fits of convulsion in the course of the night. Has taken sixty drops of laudanum at three doses, which appeared to calm the violent agitation after the paroxysms.

27th, 10 A. M.—Severe and frequent fits during the night; breathing stertorous; pulse rapid and feeble.

Died on the 28th.

I examined the brain, but except a slight turgescence of the blood-vessels of the pia mater, no morbid appearance was observed.

V. S. ℥xxxv.; V. S. ℥xvj. Head shaved; enemata; calomel; ol. ricini; tinct. opii; sinapisms, &c.

CASE VII.—Mrs. ——, æt. 24, first pregnancy; ninth month, unmarried, 1828. A weak delicate woman; had several fits of convulsion in the first stage of labour, in consequence of which she was severely bruised in different parts of the body. She was completely insensible in the intervals. The pains ceased, and the os uteri being only partially dilated, and the head of the child being too high in the pelvis for the forceps, the delivery was completed by craniotomy. The fits soon after ceased. V. S. ℥xxv.; do. ℥xij. Cured.

CASE VIII.—Mrs. H., æt. 24, first pregnancy; ninth month. Sept. 16th, 1828. Constipation and headache for several days; severe fits of convulsion; insensible in the intervals. Pupils dilated; pulse 80, full and strong; face flushed; os uteri slightly dilated; feeble irregular uterine pains. After venesection and free evacuation of the bowels the fits ceased, and she was delivered the next day, without assistance, of a living child; but it died in 30 hours with convulsions. V. S. ℥xxxv.; hirudines; head shaved; calomel; enemata. Cured.

CASE IX.—Mrs. W., æt. 33, second pregnancy; ninth month. Oct. 6th, 1828. Had convulsions during her former labour. Headache, giddiness, and drowsiness, during the latter months of pregnancy. Venesection recommended, but not employed. In the first stage of labour, during the night, several severe fits at short intervals; muscles of left side most affected; face flushed; pupils dilated; pulse rapid, feeble, irregular; os uteri widely dilated; head pressing through the brim of the pelvis.

7th.—Child born alive this morning without artificial assistance. The fits soon after ceased, and consciousness partially returned. Left side slightly paralysed; pupils dilated.

11th.—No return of fits, and the paralysis is gradually disappearing. From this period she recovered the use of the arm and leg.

On the 4th of January, 1829, she died in a fit of convulsion, with which she was seized soon after taking an emetic, without advice.

Serum was found in the ventricles of the brain. A portion of the upper part of the right hemisphere was in a state of complete ramollissement. Both the cortical and medullary parts of the brain were changed into a thin substance like custard. There were tubercles in the lungs.

V. S. ℥xx.; cupping, ℥xij.; calomel, &c.; head shaved.

CASE X.—Mrs. P., æt. about 25; eighth month. Jan. 27th, 1828. After a violent quarrel with her husband, who came home intoxicated, complained of headache and general indisposition. At 7 A. M. seized with strong convulsions, of which she has had several paroxysms. 11 A. M. insensible; tongue lacerated; a bloody foam issues from the mouth; fits continue, with short intervals, when the muscles are affected with spasm. Pulse slow, full, and strong; os uteri dilated; head of child low in the pelvis. During the continuance of the fits the child was expelled without artificial assistance, at 8 P. M. Afterwards had puerperal mania. V. S. ℥x.; V. S. ℥xxvj. Head shaved; stimulating enema; cupping ℥xij.; do. ℥xij. Cured.

CASE XI.—Mrs. B., æt. 30; ninth month. April 15th, 1829. Headache, vertigo, great depression of spirits, during the seventh and eighth months of pregnancy. Convulsions: hemiplegia of left side took place seventeen days before labour. Labour natural. Died comatose three days afterwards.

Serum in the ventricles of the brain. A small scrofulous tumor adhering to the basilar artery. A portion of the right anterior lobe of the cerebrum softened, and of a yellow colour.

V. S. ℥xvj.; cupping, ℥xvj.; do. ℥xij.; head shaved; lotions, blisters, cathartics, &c.

Case XII. ——, æt. 30; fourth or fifth pregnancy; ninth month. 1829. Violent convulsions, and insensibility in the intervals, for twenty-four hours, without any sign of labour. After repeated copious venesection, &c., and the fits continuing with undiminished violence, Mr. Stone agreed with me in the propriety of artificial delivery, which I immediately performed by turning the child. Considerable time and force were required to dilate the orifice of the uterus, which grasped the neck of the child so firmly after the body and extremities were delivered, that great force was required to extract the head. The fits ceased as soon as the delivery was completed, and she soon recovered. V. S. from ℥l. to ℥lx.; cupping; enemata; calomel; artificial delivery; ice in a bladder to the shaved head.

Case XIII. ——, æt. 20; first pregnancy; eighth month. 1829. Delicate and hysterical; headache and giddiness for several days. From twenty to thirty severe fits of convulsion during fifteen hours; insensible in the intervals; pulse 80; face flushed; bowels costive. Labour came on twenty-four hours after the first attack, and a dead child was soon expelled. No fit after delivery. Consciousness did not return for several days. Uterine and crural phlebitis followed. V. S. ℥xij.; V. S. ℥xx.; head shaved; ice to the scalp; calomel; enemata. Cured.

Case XIV. ——, middle age; first child; near the full period. March 23d, 1829. Labour commenced four hours before the first fit, which was long and severe. Complained of headache and giddiness for several weeks before. Os uteri fully dilated at 10 p. m.; about the half of the head in the cavity of the pelvis. The pains completely ceased, after the convulsions occurred, till 1 a. m. of the following morning, when they returned, and at 2 o'clock a dead child was expelled.

26th.—Partially conscious; no fits. Attacked on the 27th with uterine inflammation, and died in three days.

Body not allowed to be inspected.

V. S. ℥xxx.; leeches, xij.; head shaved; lotions, enemata, blisters, &c.

Case XV. ——, a young woman; first pregnancy; ninth month. Sept. 1829. Had frequent and violent fits of convulsion soon after the commencement of labour. Four pints of blood had been drawn from the temporal artery by her medical attendant before I saw her. Os uteri slightly open; no pains. Convulsions continued five hours, when a dead child was expelled. No fit after delivery; but she continued comatose, and died soon after. Copious V. S.; head shaved; enemata; calomel.

Case XVI. ——, æt. 25; first pregnancy; ninth month. April 8th, 1830. Hysteria at the age of 15. At the end of the ninth month frequent fits of convulsion in the course of twelve hours. Consciousness returned after venesection. Severe headache, and occasional spasms of the face and extremities. Labour natural. Uncertain if the child was alive. V. S. ℥xxx.; calomel, gr. x.; enemata; cathartics; cold to the shaved head. Cured.

Case XVII. ——, æt. about 20; first pregnancy; ninth month; admitted into the St. James's Infirmary, Jan. 1, 1831. Incoherence, followed by convulsions, towards the end of the first stage of a protracted labour. Labour pains strong and regular, and the greater part of the head in the cavity of the pelvis. The fits were relieved after venesection, and she was delivered in a few hours of a dead child, without help. V. S. ℥xviij.; V. S. ℥x. Cured.

Case XVIII. ——, æt. 30. May 9th, 1832. Had epilepsy when a child. Labour began at 8 a. m., 7th May. Membranes ruptured in the night; os uteri dilated to the size of a crown on the morning of the 8th. Pains feeble; com-antispasmodic draught, which relieved the symptoms. During the forenoon she remained in a drowsy state without complaining. At mid-day a fit of convulsion occurred. At 3 P. M. another and more violent fit followed. I saw her soon after this. The pulse was extremely rapid and feeble, and it became altogether imperceptible at the wrist on the abstraction of eight ounces of blood from the arm. More blood would not flow from a large orifice in the vein. Orifice of the uterus slightly open; labour pains commencing. Membranes ruptured artificially, and liquor amnii discharged. An hour after, four ounces of blood were removed from the temple by cupping, when the pulse again became imperceptible. At 6 P. M., the os uteri being dilated, and the head in the pelvis, I delivered with the forceps. The child was dead. The fits continued, and she died at 8 P. M. V. S. ℥viii. Cal. gr. x.; Haust. Antip. Cal. gr. xv.; Cupping, 4 ounces. Head shaved. Enema.

CASE XXXIV.—Mrs. P——, æt. 35, a widow, in the eighth month of her third pregnancy. For fourteen days had influenza and severe headache. At 1 P. M., 8th February, 1837, attacked with convulsions. At 8 P. M. she had had 16 severe fits. V. S. had been employed, and the hair cut off. At 9 P. M. pulse 110, and feeble; hands and feet cold; sterterous breathing. When the fits occurred, the muscles on the right side of the body became first affected. In about a minute the spasms left this side, and the muscles of the opposite side became affected. Pupils dilated. Membranes ruptured. At midnight the fits continued, and the head not being sufficiently advanced for the forceps, she was delivered by craniotomy. Only one slight fit occurred after delivery, and consciousness was restored in the course of the day. V. S. ℥xl. Head shaved. Calomel. Enemata. Cured.—*Ibid.*

BIBLIOGRAPHY.

The Philadelphia Practice of Midwifery. By CHARLES D. MEIGS, M. D., Lecturer on Midwifery and the Diseases of Women and Children; Member of the Philosophical Society, and of the Philadelphia Medical Society. With numerous Engravings. Philadelphia: James Kay, Jr. and Brother, No. 122 Chesnut Street. Pittsburgh: John I. Kay and Co. 1838. Pp. 370. 12mo.

We believe that we began the perusal of this work in a suitable frame of mind, to enable us to form an impartial estimate of its merits. Our prepossessions in favour of the author were in a great degree balanced by the feeling of backwardness which a practitioner and a reader may be supposed to experience, when taking up a new work on midwifery. What! we were on the point of exclaiming, another, and yet another, as we found ourselves in possession of the present treatise, just after having introduced the valuable one of Collins into our Library. Now, if under these circumstances, we were led on, when we merely proposed to refer to a particular passage for an expression of opinion, to reading the whole chapter, we can confidently recommend the book of Dr. Meigs to our professional brethren, generally, as *pleasant reading*, and to our younger friends, in particular, both in the profession, and yet engaged in its preliminary studies, as a useful guide in obstetrical practice.

The author writes in a style of blended aphorism and narrative; the first, succinct and modestly laid down; the second, clear and untrammelled by superfluous and extraneous matters. We feel as if we were conversing with one who had read much, practiced much, and meditated well, on the various important questions embraced in his favourite branch of medical science; and who, whilst giving his own experience, is not desirous to dogmatise his own doctrines nor to denounce or needlessly disparage those of others. If, here and there, a phrase somewhat figurative is met with, the reader still sees that it does not mislead him as to the meaning; and he ought, also, to be informed, that the author, so far from aiming at false effect by this means, deserves credit for his successfully keeping under wholesome restraint, an active imagination, if not a temperament somewhat poetical. There is just evidence enough of these latter, in an agreeable colouring of the style and turn of thought, without false analogies or exuberant phraseology.

In the first eight chapters of his work, Dr. Meigs reviews briefly, but clearly, the pelvis and its peculiarities; the organs of generation and their diseases; the function of menstruation and its principal disorders. We are not called upon to analyze these; nor is it necessary to indulge in any critical commentaries. Little space, happily, is taken up with hypotheses; and after the annunciation of principles, in the treatment of amenorrhœa and leucorrhœa, for example, no one need object, that all the remedies which have popular usage, or the recommendation of a great name in their favour are not mentioned.

The ninth chapter is devoted to pregnancy, including the subjects of generation, formation and use of the decidua, gradual development of the gravid uterus, effects of pregnancy on the system at large, the placenta and its connexion with the uterus, fœto-placental circulation, duration and signs of pregnancy; touch and *ballottement* or tilting, auscultation and the *souffle;* abortions and hemorrhages attendant thereon, prolapsus produced by abortion, and remedies for the same in pessaries, &c.; retroversion; preparation of a patient for labour.

Dr. Meigs points out the caution required in not receiving as valid, all complaints of amenorrhœa; and mentions the case of a female who was seven months with child, and yet who swore solemnly that she was not pregnant. The author prefers the globular, in shape, and the metallic silver washed with gold, in composition, to any other kind of pessary. He tells us:—

> "I shall take this opportunity to mention that I was, not long since, informed that a female labouring under prolapsion, to a very great degree, made use of the ring of a parasol, which, having dipped in melted wax until sufficiently coated with it, she introduced herself, into the vagina, and has worn, for twenty years, without her husband having, even until this day, the least knowledge that she uses such a remedy. It seems that she is unable to dispense with the support that the instrument gives her; since, whenever she removes it, the pains, and sense of weight or dragging return immediately. I may, also, mention, that another lady, of my acquaintance, wore one of the globular form during ten years, without removing it once; it has now been dispensed with for at least ten years, and her health remains excellent."

Chapters x. and xi. are taken up with the consideration of 'Labour,' and the 'Conduct of a Labour,' clearly and pleasantly written, with reference to the practical and the essential, in the position and movements of the head of the child, and the expulsive effects of the uterus, together with the best means of rendering them regular, and when deficient, stronger. We have some well-timed remarks on a relaxed and bleeding uterus, and on concealed bleeding, and on the use of ergot to prevent flooding.

In Chapter XIV., the author gives more fully the requisite details and advice on the Positions of the Head, and their 'Mechanism in Labour,' including directions for 'the touch or examination.'

When speaking of the presentations of the pelvic extremity, he dissuades from bringing the feet down; and, as a matter of precaution, he mentions his own custom of providing himself with forceps in all cases of pelvic presentation, or other kinds where the head is last to be born.

The chapter on Preternatural Labour, amongst other points worthy of commemoration, contains some excellent remarks on placenta prævia, concealed hemorrhage, adherent placenta, hourglass contraction, and hemorrhage after delivery of placenta.

In the following one, on the reasons which should guide the accoucheur in the use of the forceps, and the objects to be attained by it, we recognize a careful, experienced, and humane observer. The latter portion of this chapter is occupied with a notice and observations on embryulcia, and the use of the crotchet.

Following this, is a chapter on Inversion of the Womb, one on Puerperal Fever, and another on artesia vaginæ. The work is concluded with some brief remarks on the *morbus cæruleus* of infants.

The author's account of puerperal fever, in reference to its probable predisposing and exciting causes, the changes in the state and structure of the peritoneum during its existence, and the remedies on which we ought to rely for its removal, are so good, that we regret he did not allow himself an extension of his views on this important topic. It may be objected by some, that the probable morbid condition of the uterus itself, in the inflammation of its internal surface, is not sufficiently acknowledged by the author in his picture of puerperal fever.

He informs us, that bad labours are more apt to be followed by puerperal fevers, than easy or good ones; that not a few of the cases of this disease which have come under his notice, were clearly attributable to the imprudence of the patient in getting too soon out of bed; that common milk fever ought not to be permitted to become violent, for fear of transfer to the peritoneum; that he has recently seen two women, both of whom had peritonitis from indigestion, occasioned by the use of a kind of food which is very generally given to lying-in women; that costiveness towards the close of pregnancy should be obviated by gentle aperients or enemata, and suppression of urine carefully watched, so as to guard against distension of the bladder; that strict attention should be paid to the after-pains, which in their duration and severity are precursors or marks, rather, of peritonitis.

For the treatment, he relies on the *early* and free use of the lancet, so as to make an immediate and decided impression on the inflamed peritoneum. He quotes, as corroborative authority, Dr. Gordon. He might, we think, with great advantage, have also referred to Dr. Armstrong, whose opinions are so fully and explicitly given on this point, both in his separate essay and in his Lectures.* Opium, so highly extolled by this last author, when administered after blood-letting, as a means of allaying irritation and preventing strong vascular action, is but casually mentioned by Dr. Meigs.

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* The latter work, as known to our readers, constitutes the initial work in the 'Library.'

After the opinions already expressed, it may seem unnecessary to say that we regard the 'Practice of Midwifery,' by Dr. Meigs, as a clear, succinct, and satisfactory guide to the student and young practitioner, and that it presents, also, in pleasant summary, a picture for the older and more experienced physician to look on, and, when looking, to contemplate. The numerous and very neatly executed wood-cuts add greatly to the value of the clearly written descriptions of the pelvis and its contents, the developments of the gravid uterus, the various positions of the child, and the use of the forceps and other instruments.

The Medical Examiner. Nos. 1, 2, for Jany. 3d and 17th, 1838.

This new periodical, of the projected publication of which we gave notice in our last Number, is now before the professional reader, who can judge of its general character and complexion. These are, if we mistake not, calculated to produce a favourable impression, and to excite well-grounded hopes of permanent usefulness.

We shall content ourselves with indicating the heads of matter in the Examiner, refraining to make large or numerous selections from its columns; as it is but fair that it should have all the advantages derived from its novel and distinctive traits, without division or interruption. After a season, however, we shall exercise the same freedom in borrowing from, and commenting on its contents, which we display towards our other contemporaries.

The first number opens with Notes of a Lecture delivered at the Philadelphia Medical Institute, by Dr. Thomas Harris. Following this is a Lecture on Cynanche Laryngea Chronica, or Chronic Laryngitis, by Dr. Chapman, the completion of which is given in the second number. In this latter we see Clinical Lectures at the Philadelphia Hospital by Drs. Gibson, Jackson, and Gerhard; and at the Pennsylvania Hospital by Dr. Randolph. Cases are furnished by Drs. Pepper and Goddard, and a statistical account of Fractures, treated in the Pennsylvania Hospital, from 1751 to 1838, in four tables, by J. M. Wallace, M.D., resident surgeon. If to these articles we add brief critical and bibliographical notices, and a summary of medical intelligence at home and abroad, our readers will have tolerably correct ideas of the nature of the contents of the two first numbers of the Medical Examiner.

In addition to the immediate good effects to the readers of the Examiner, we anticipate indirect but not less substantial benefit to the physicians and students throughout the country. The publication of clinical lectures delivered in our great medical metropolis, will incite them to imitate this state of things at their respective homes. We still hope to see the day when the view which we presented in an early number of this Journal, in an article entitled Clinical Medicine, will be carried into successful operation; every minor hospital, and the infirmary of every poor-house in the United States, being made a clinical school—the attending physician and surgeon being the lecturer, and the students in and around the place the pleased and attentive auditors. To the advantages thus afforded, let a knowledge of elementary practical anatomy be added; and the gain to the cause of medicine will be incalculable. We shall then have students who will be at the same time observers and thinkers, and who will come to our great central schools of medicine with faculties sharpened and prepared to appreciate fully the more enlarged and philosophical views and complex cases, which will be placed before them in the lecture-room and the hospital.

The Final Report of the Committee of the Philadelphia Medical Society, on the Construction of Instruments, and their Mode of Action in the Radical Cure of Hernia; (from three years' observation). Accompanied by a Collection of the Practical Facts contained in the Preliminary Report. With Notes, Illustrations, and Additional Cases of Hernia, and Diseases resembling Hernia. Also, Illustrations of certain Instruments designed for the Treatment of other Diseases affecting similar Parts. By HEBER CHASE, M. D., &c. &c. Philadelphia: J. G. Auner, 1837. Pp. 243. 8vo.

This is rather a long title to a short work; but it is also a kind of table of contents of what is intrinsically valuable. It were a waste of words, to add any thing, now-a-days, to what has been said of the importance of a proper knowledge and judicious treatment of hernia; or of the additional interest attached to the disease, from the large number of persons who are afflicted with it in every community.

The very elaborate reports of the Committee of the Medical Society, drawn up by its able chairman, Dr. Reynell Coates, contain an investigation of the state of parts affected in hernia, the indications to be fulfilled for its removal, and the mechanism by which this is accomplished. The report before us, the final one, is chiefly devoted to this latter point; and mainly in reference to the instruments invented or modified by Dr. Chase for the purpose.

The result of observations made in great number, and for a length of time, is highly favourable to this gentleman's skill and ingenuity. Of this, his professional brethren generally should be aware; so that, through their instrumentality, thus enlightened, they may be able at once to know how and where to direct their hernial patient for the speediest and most permanent relief. The following testimony is strong on this point, and it might, we believe, be readily enlarged and enforced.

"All the individuals who have relinquished the use of the trusses approved by the committee, after having worn them for six months or more, and who have been afterwards examined by a member or members of the committee, have been subjected to the necessary tests, and are believed to be radically cured in the sense of foregoing definition. A still larger number, who are yet under treatment, give promise of a similar result, and those who refuse finally to relinquish the instruments on the advice of their surgeon, present, in the firmness of the rings, and in the absence of protrusion under exertions performed when the trusses are temporarily removed, very strong grounds for believing the cure to be radical in them also."

The opinion advanced by the committee in its first report, adverse to the wear of trusses by infants, is admitted in the present one to be disproved by experience, which shows that the instruments under notice have been borne without inconvenience by this class of subjects. "Their applicability, within the year, has been successfully tested in two cases; and it is certain that more force is required to confine the bowels by any form of bandage or compress, than by means of a well regulated spring and block."

In the appendix, numerous cases of various periods of duration are given, illustrative and confirmatory of the efficacy of Chase's blocks.

In this division of the book, we find a chapter on Circocele and Varicocele; in which, after enumerating the causes and symptoms of the disease, Dr. Chase gives a detailed description, and an engraving of a 'new suspensory band,' for its relief in old cases, and its cure in recent ones. Frequent and troublesome as is varicocele, we must hail with thankfulness the presence of a new and simple apparatus for mitigating its discomforts, even if it should not, which this promises to do, on the evidence of facts, entirely eradicate it.

The last article in the volume, is a description, with an engraving, of an improved vaginal syringe, by Dr. Chase.

A Clinical Lecture on the Primary Treatment of Injuries, delivered at the New York Hospital, November 22d, 1837. By ALEXANDER H. STEVENS, M. D., Surgeon of the New York Hospital, and Emeritus Professor of Clinical Surgery. New York: Adlard and Saunders, 46 Broadway, 1837. Pp. 34. 8vo.

The want of novelty of view should not detract from the real value of this lecture, written by an experienced and conscientious surgeon and teacher of surgery. The subject is, confessedly, an important one. In reference to the treatment immediately after severe injuries, there is probably still room for the caution given by Dr. Stevens, not to be in haste with the use of the lancet; even after the somewhat satirical but expressive question, propounded now many years ago, by Sir Charles Bell, in his Operative Surgery. When, after a recent injury, blow or concussion, the person is insensible, the surgeon brings out his lancet, and the old woman her brandy bottle; have not the two changed places? We do not give the words, but we believe we exhibit the parties for the lesson to be conveyed.

In the treatment of particular symptoms, we have good advice from the Lecturer. The thirst "on the battle-field, in the cock-pit, and in the accident-wards of hospitals, *should not be fully indulged;* but the mouth should be wet with spoonfuls of water at short intervals."

After telling us truly, that "*stimulants* should not be given in excess," Dr. Stevens lays down an axiom, that "*in general, it is not well to give stimulants long after a rigor has set in.*"

An Introductory Lecture to the Course of Surgery, delivered in the Chemical Hall of the Washington Medical College of Baltimore. By JOHN R. W. DUNBAR, M. D., Professor of Surgery and Surgical Anatomy, and Surgeon to the College Hospital. Baltimore, 1837.

In place of the notice of this lecture, prepared for our last number, but the insertion of which was omitted, Dr. Dunbar will accept our thanks, and our best wishes for his success and usefulness, both in his course of surgery, and his career in life.

Report of the Medical College of Ohio.

A pamphlet thus entitled, consists of a Report of the Trustees of the Medical College of Ohio to the General Assembly of the State, followed by a Report of the Faculty and others to the Trustees.

From the former document we learn, "The present faculty consists of the following professors and lecturers:

"Dr. Jared P. Kirtland, Professor of Theory and Practice.

"Dr. R. D. Muzzey, assisted by Dr. Delamater, Lecturers on Surgery.

"Dr. M. B. Wright, Professor of Materia Medica.

"Dr. John S. Shotwell, Professor of Anatomy and Physiology.

"Dr. John Morehead, Professor of Obstetrics and the Diseases of Women and Children.

"Dr. John Locke, Professor of Chemistry and Pharmacy.

"The high character and professional attainments of these gentlemen, and the talents evinced in their efforts since the re-organization, in the opinion of the trustees, warrant the prediction that, after a fair trial, the new faculty will be found to sustain the high reputation of the college, and that the school will not ultimately suffer by the change. The number of matriculated students now in attendance is eighty; that is to say, from Ohio 59, Indiana 6, Virginia 4, Kentucky 3, Mississippi 2, Pennsylvania 2, New York 2, New Jersey 1, Massachusetts 1."

The report of the means for demonstration belonging to the several chairs, is very satisfactory. Dr. Locke, who has returned from Europe, gives an account of various machines and apparatus added to his laboratory.

Dr. Shotwell, attending physician to the Commercial Hospital, gives a flattering report of the state of this institution, and of its resources for the reception and accommodation of the sick.

The Library consists, we are told, of one thousand seven hundred and six volumes. How many volumes are contained in the Libraries of the two chartered Medical Schools of Philadelphia? The first difficulty for an inquiring stranger would be to find out a room in either of them which, by strained courtesy, could be called a Library.

Catalogue of Officers and Students of the Medical Department of Transylvania University. Lexington, Kentucky. January, 1838.

Having on a former occasion published the names of the Trustees, and subsequently of the present Medical Faculty of this Institution, we are not required to introduce them here. The Medical Class for 1837-8 consists of 227 students—a number which, all things considered—the times, sinister counteracting influences, &c., ought to satisfy the warmest friends of Transylvania.

In a Preamble and Resolutions of the Dissecting Class, 84 in number, is the following: "Resolution 2d. That so far as the present session has advanced (Jany. 2d, 1838,) all of us who have applied for Anatomical Materials have been immediately supplied. Resolution 3d. That a large proportion of the classes are [is], at this time, actually engaged in practical anatomical investigation, while one half of the members have already enjoyed the advantages of private dissection. Resolution 4th. That none of us have, at any period, during the course, visited either the public or private dissecting apartments, without finding more than a sufficiency of excellent subjects. Resolution 5th. That subjects are furnished us at a very moderate price."

QUETELET ON MAN.—We cannot commend too highly the valuable article under this head, which begins the present number of the Eclectic Journal. Notwithstanding its length, our readers have the customary variety of matters, owing to an addition of twelve pages furnished by the Publishers for this Number.

THE ECLECTIC

JOURNAL OF MEDICINE.

Vol. II. MARCH, 1838. No. 5.

STATE OF MEDICINE IN TURKEY.[*]

In the present article, we shall endeavour to lay before our readers a comprehensive but brief analysis of the more important matters contained in Dr. Oppenheim's little work, adopting our own arrangement, and breaking the thread of the narrative with but few observations or critical remarks of our own. We must, however, commence by stating our conviction, founded on a careful perusal of the book, that, exclusively of its medical details, it contains more new and accurate information respecting the character, manners, and customs of the Turks, than any of the numerous and large works—we had almost said, than all of these—which have been published during the last twenty years. This arises from the peculiar advantages enjoyed by Dr. Oppenheim derived from his long stay in this country, and the unequalled opportunities which his particular position afforded him of seeing the natives more closely and more at home, than can be done by the mere traveller. It would appear that Dr. Oppenheim entered Turkey during the last Russian campaign, in the medical department of the invading army, and that, after the peace, he passed into the Turkish service, under the auspices of the Grand Vizier.

"A residence of almost three years in the different provinces of Turkey, both in Europe and Asia, has given me full insight into the manners and customs of the people, as well as made me acquainted with the state of medicine among them; and this chiefly because I did not spend the greater part of this time in the capital, as was the case with most physicians who have given us any accounts of these countries, but travelled through the various provinces in my capacity of an army medical officer. And further, in the latter part of my stay, through the particular introduction of the Grand Vizier and other Turks of eminence, I had access to the Turks themselves; a thing so difficultly obtained by a foreigner: after I had made myself master of the customs and the language, and had adopted the oriental dress, I was treated, not as a Frank, but as a true believer, and received freely into their families." (*Preface*, p. vi.)

The knowledge of medicine, in all its branches and in all its foundations, is at the lowest ebb among the Turks; so low is it, that it requires some effort to comprehend how it can happen that a people, so long possessing a fixed government and civil institutions, and in constant relation with polished nations, could remain to this day almost as destitute of medical and of all kinds of scientific knowledge as the savages in the South Sea Islands. Yet such is nearly the case. The nature of our work will not permit us to enter upon the consideration of the causes of this singular result, but we may state that it mainly flows from the nature of the Mahomedan religion, and the modes of thinking and acting to which it has given rise. It is sufficiently apparent from Dr. Oppenheim's work that, although some slight advances have certainly been made, and are making, towards a more rational system of medicine, through the residence of foreign physicians, now daily more countenanced by the government, still it is impossible that medicine can flourish while Islamism is, as at present, not merely the national faith, but the deeply-cherished and enthusiastic love of the whole nation. It is a melancholy truth that the whole mass of the Turkish people are, in respect of the cultivation of the intellect, still barbarians; and it is more melancholy still to know—and no reader of the work before us can fail to know,—that the state of moral cultivation is, if possible, even lower than that of the intellectual. Animal gratification of the grossest kind is the governing motive of the whole male population; and, perhaps, the most striking illustration that could be adduced, at once, of the degradation of morals and of medicine in this unhappy country, is the fact, demonstrated by every page of the work of Dr. Oppenheim, that the most prized, if not the principal, part of the miserable duties of the native doctors, is to minister, by fancied restoratives and corroborants, to the palled appetites and jaded powers of an exhausted or superannuated sensuality. It is impossible to contemplate the dreadful consequences flowing directly and unquestionably from the doctrines of Islamism, without admitting that Christianity, in its most corrupted and degraded form, has claims to the respect and patronage of the philosopher and philanthropist, whether a believer or an infidel, of an immeasurably superior kind to those which can be preferred by the religion of Mahomet, even in its purest and most perfect condition: and no human being, with an intellect above a savage, can fail to express his satisfaction, in perusing the degrading details here presented to him, that his lot has been cast in a Christian land, amid the blessings of civilization and the institutions of a free state. It remains to be seen to what extent the example of the present ruler of Egypt will operate upon the Turkish empire at large. It is certainly a most important step gained that, under his authority, both the principles and practice of European medicine and surgery have become triumphant, not only over the ignorance, but over the prejudices and religious scruples of the people. It is also a most fortunate circumstance, that in the present head of the medical institutions of Egypt, Clot-Bey, great knowledge, great skill, and great courage are combined. In spite of one of the most inveterate of the popular prejudices, the inviolability of the dead, anatomical dissections are now publicly practised in Egypt, under the superintendence of this distinguished man, while the plague itself is losing half its terrors, and probably will speedily abate its ravages, under the influence of his enlightened courage.

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[*] Ueber den Zustand der Heilkunde und ueber die Volkskrankheiten in der Europäischen und Asiatischen Türkei. Ein Beitrag, &c. Von Friedr. Wilhelm Oppenheim, Doctor der Medicin und Chirurgie, &c. Hamburg, 1833. 8vo. pp. 148.

An Essay on the State of Medicine, and on the prevailing Diseases of European and Asiatic Turkey. By F. W. Oppenheim, M.D. Hamburg, 1833.

The practitioners of medicine in Turkey are of various kinds and orders,—Turks, Greeks, Jews, and Franks or Europeans. The native, or Turkish doctors, are to a man ignorant of the first principles of medical science, and the slaves of the most blind empiricism or grossest superstition. Anatomy is totally unknown and unpractised, and must be so while the existing religion is strictly maintained. To the Turks, however regardless of life, every dead body is sacred. The opening of dead bodies is expressly forbid by the Koran, "even should the dead person have swallowed the most costly pearl, which did not belong to him." There is admitted no exception to this, except in the case of a pregnant woman dying while the child gives signs of life; in which case the Cæsarean operation is permitted. The present Sultan, it is true, has had published, by special command, a large work on anatomy and medicine, containing numerous anatomical plates; but we are told by Dr. Oppenheim, that even this imperfect substitute for dissections is not known to a single practitioner in the empire, except the immediate pupils of the school recently established in Constantinople. It is somewhat singular that, although the pulse is regarded by the Turks as capable of indicating everything necessary in diagnosis and practice, they are altogether ignorant of the circulation of the blood. Divination is still one of the principal agents in the medical practice of Turkey; the influence of the stars, necromancy, talismans, amulets, and cabalistic figures, are the objects of their undoubting faith. Sometimes disease is regarded as an evil spirit, and is attempted to be conjured away; at other times it is considered as an immediate judgment from God, whose wrath is to be appeased by long prayers and the counting of the rosary: at one time a passage from the Koran is written on paper, pounded into a bolus and swallowed, or the words are written on a board, washed off, and the inky water given as a draught. Amulets, both as prophylactics and means of cure, are in the highest estimation, and indeed by all classes of Orientals, as well Christians and Jews as Turks. They mostly consist of triangular pieces of paper, containing written passages from the Koran or Bible, sewed into some part of the dress. These are deemed also very important in protecting the wearers from the *evil eye;* a superstition of universal belief in Turkey. The doctors religiously observe also what they term their white and black, or lucky and unlucky days: on the last, no course of treatment is undertaken, no surgical operation performed.

Next in number to the native doctors are the Greek practitioners, who may be divided into three classes,—those who have studied medicine in Europe, generally in Italy, for a short time; those who have inherited their knowledge from their fathers; and, lastly, those who have been servants, assistants, or apothecaries for a certain time, with some so-called doctor. Of these three classes, the most ignorant and dangerous, and of course most pretending, are the first. The dangerous thing of a little learning was never better illustrated than in them. The oldest members of this fraternity are stannch Brunonians, and deal in nothing but bark, camphor, valerian, and such like; the juniors are all disciples of Rasori and Broussais, and wield their depletory arms, leeches, venesection, emetics, &c., as boldly and indiscriminately as the former do their nervines and their stimulants. The hereditary doctors come chiefly from a particular district in Lower Albania; they have never studied medicine at all, and practise purely as empirics, on the stock of recipes and specifics transmitted as heir-looms from father to son. These, as well as the third class, retain their national costume; the first, on the strength of their European education, and because it confers some fiscal privileges, wear the Frankish dress.

In the same rank of knowledge and consideration as these last are the Jewish doctors, who generally keep shops in the bazaars, and hawk about their drugs and their medical skill, their cosmetics, and their dye-stuffs, to all comers. When summoned by a passing patient, they ask no questions, but feeling the pulse with an "I know your disease," administer on the spot a pill or powder, receive their fee of a couple of paras,* and recommence their cry "El hekim," (good physic!)

It is not to be much wondered at, amid such a degradation of native science and skill, that the Turks should be disposed to think highly of European physicians. Indeed, such is their ignorance and faith in this matter, that every individual that appears among them in the European dress, is not only regarded as a doctor, but is often *constrained* to act as such. *Frank* and *physician* are almost synonymous terms; and to every one that wears a hat, a hundred arms are outstretched wherever he goes, with a request to feel the pulse, the universally believed indication of all diseases and their cure. With this prejudice in favour of foreign practitioners, it will readily be believed that Frankish adventurers of all sorts, with or without medical knowledge, literally

Ambubaiarum collegia, pharmacopolæ
Mendici, mimæ, balatrones, hoc genus omne—

are not wanting to take advantage of the national credulity, and to profess and practise an art of which they know absolutely nothing. Of the regimental surgeons mentioned by Dr. Oppenheim, one had been a letter-writer in Corfu, another a captain of a Ragusan trader, who took to physic when he had lost his ship. A non-commissioned officer in the army of Piedmont, who had taught French in the consul's family at Adrianople, took it into his head to turn doctor; and, through the strong power of his own will, actually became so. Furnished by Dr. Oppenheim with *sixteen recipes*, he was forthwith installed as body physician to the Aga of Iambul. On another occasion, in Smyrna, our author was invited to meet in consultation with a French *physician*, who had been drum-major in the army of Napoleon!

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* A marvellously small fee, since there are twenty paras in a German groschen and about eight groschen in a shilling.—REV.

After this account of the generally degraded state of medicine and its professors in Turkey, it is but justice to our author, and to the gentlemen commemorated by him, to state that there are to be found in various parts of the empire some Greek physicians who have received an excellent education in Europe, and who practise their profession with the skill of men of science and the dignity of gentlemen; but alas, their numbers are extremely limited.

With the exception of Constantinople, there are no apothecaries' shops properly so called, in any part of Turkey; nor is this to be expected in a country where the great majority of the practitioners cannot read, much less write a receipt. Of course, there is no national pharmacopœia, and every one prescribes and administers what seems to him good.

With all their ignorance, the professional men in Turkey are most highly esteemed. *Omne ignotum pro magnifico:* and the universal ignorance of the nature and powers of the healing art among this people, gives it, in their imagination, a value which it never can possess. Physicians, or persons so called, are universally regarded as in some degree sacred, and the title of doctor (*Hakim*) is the surest protection against all kinds of political and religious persecutions. Even the Greeks give to them the title of *Excellency* (ἐξοχωτατος). Nevertheless, it would appear, from Dr. Oppenheim's account, that professional services are not very liberally rewarded, at least those of the native doctors.

"The sick Turk promises much, but the cured one pays little. (*Medicis in morbis, &c.*) He rarely pays for any thing more than the medicine; and, as the physician most generally makes that up himself, he regulates his charges accordingly. If the patient dies, there is but little chance of the physician receiving any thing for his trouble; and, if he recovers, he soon forgets both disease and doctor. These remarks, however, apply only to the native practitioners; the Frank or European physician is almost always adequately remunerated, though the Turk does not reward the skill of the physician, but only pays for the actual labour bestowed on him. This is sufficiently indicated by the name given to the physician's honorarium, (Ajakderesi, *foot-money*,) which is put into his hand on his departure by the patient's servant, and amounts generally to a half or a whole *marmudié*, a gold coin worth from twenty to forty Turkish piastres, and equal to from two to four of our German dollars, [from five to twelve shillings, English;] besides this, the physician's servant, in most cases, receives as *bakschisch* (drinking money), a *barbut*, the least Turkish gold coin, and equal to about six German groschen [about one shilling, English]. When these Ajakderesi are not tendered on the first or second visit, the physician does not repeat the visit till his fees have been sent him, and he is again invited to renew his attendance. In many cases, also, the attendance is not paid for till after the cure, which is particularly the case in attendance at the harem.

"In important cases, particularly in such as require energetic measures, or in cases of surgical operations, specific bargains are made, and these are sometimes settled in presence of the cadi. In cases of this kind, the physician engages to cure the patient within a given time, for a stated sum to be paid to him after the recovery. In these cases, the Turks are constantly cheated by the Greeks, as they refuse to delay the payment till after the cure, and insist on receiving a third or even the half of the stipulated sum in advance, well knowing that the chances are, not that the patient will recover, but that he will die, and that the doctor will then lose any unpaid part of the sum agreed on.

"The most effective method for the physician to secure himself against fraud, is to make his bargain in the presence of the Cadi; for, as this latter is entitled by law to ten per cent. of the sum agreed on, he invariably decides in favour of the physician, unless indeed the patient offer him more than the ten per cent. he is legally entitled to; in which case, venal justice will most certainly preponderate in the opposite scale.

"Payment for medical attendance is not always made in money, but is sometimes tendered in the shape of provisions, slaves, horses, arms, &c. I had cured the governor of Adrianople of a long standing fever; after his recovery, he asked me if I was married; on my replying in the negative, he offered me, as a present, two beautiful Greek slaves; and, when I declined his offer, stating that no women were allowed in the train of the army, he wished to give me a boy, and was much astonished at my refusal of so valuable a present and want of gratitude for his liberality. In a little town in Asia Minor, called Balükassar, I had cured the Aja of a large nasal polypus; his expressions of gratitude for the service rendered him were very warm; 'but,' added he, 'I have no money to pay thee with; take, therefore, this Curdish stallion and the camels which shall accompany thee as far as Konia.' Accordingly, when I took my leave, I found in my train two camels loaded with sheep and goat cheese, which he had sent in lieu of money.

"In cases of operation, it is still more advisable that the physician should settle the terms in presence of the judge of the place; not merely to secure the payment of the sum agreed on, but also to protect himself against private revenge. On such occasions, the practice is for the patient, or one of his relatives, to accompany the medical practitioner to the Cadi; or, in large towns, where such a functionary is to be found, to the Mufti, who draws up a *fetiva*, by which the practitioner is exonerated from all blame and responsibility in case of a fatal result, and has secured to him a stipulated but generally inadequate sum, amounting on the average to from one hundred to two hundred piasters, (from twenty-five to fifty German marks.) The operation for the stone forms, however, an exception to this general statement, as it is satisfactorily compensated. In cases of failure, it is usual to pay only half the sum agreed on.

"But the case is very different if the physician should have the misfortune to lose a patient, not in consequence of a surgical operation, but of some internal disease; for, in such a case, he runs great risk of answering with his own for the life of the deceased, and more especially if he happened to be connected with the diplomacy of the country, or was invested with some high office. In a case of this kind, the relatives, exasperated by the loss of the property of the deceased, which is generally forfeited to the imperial treasury, will seek to avenge themselves on the person of the physician. Under other circumstances, the relatives are easily appeased with the remark that fate had fixed that hour for the death of the deceased, and, as he was gone to Paradise, death could not be considered as a misfortune for him." (P. 20.)

The intercourse of physicians with the female part of the population, when sick, is, of course, remarkably restricted by the national mode of treating women. The following account of Dr. Oppenheim's first visit to the harem is interesting to us chiefly in a medical point of view, as affording another striking illustration of the barriers thrown by the Mahommedan religion against the progress of medical science, or rather against the beneficial operation of medicine as a practical art. It is, of course, impossible that any disease can be properly treated in the harem,—in other words, any disease of the female sex,—whilst such regulations are enforced as are noticed in the following extract:

"Like every one else, I was extremely anxious to judge from experience of the beauty of the Circassian and Georgian women, who are brought in their earliest youth to Constantinople to be sold, and thence sent into every part of the sultan's dominions, either to perform the menial offices in the harems, or to bear children to their lords. I was also very desirous to see the interior arrangement and management of these female colonies; and fortune soon offered me an opportunity of satisfying my curiosity. The favourite wife of the Kiaja-Bey (commercial agent) of the governor of Adrianople had been sick for three days, and the Pasha, who placed implicit confidence in me, declared I could most certainly cure her, if permitted to see her. The Kiaja-Bey, to whom I was not personally known, sent to request me to accompany his Harem-Kiaja, a black eunuch, to his harem, which lay at more than a quarter of a league from his house. We proceeded to a low door, which was opened on our knocking, and were admitted into a garden: here I found an airy pavilion, the coolness of which was preserved by a magnificent fountain and cascades. In this delightful spot I was invited to rest, and served with coffee and a pipe, while my arrival was announced. After a delay of a quarter of an hour, I was conducted through the garden to a second door, where I was received by a veiled woman, the superintendent or portress of the harem, who likewise conducted me through a garden into the building appropriated exclusively to the use of the women; when a number of slaves and children, white and black, crowded round me with eager curiosity, or peeped from behind the curtains. At last the sick chamber was opened to me; a neat little apartment with red furniture and closed curtains. The fair patient was lying on cushions arranged on the carpetted floor, close to an ottoman, and covered from head to foot with a white cloth, in such a manner as to leave the beholder in actual doubt of her presence. I was directed to take a seat on the ottoman nearest to the head of the couch, and all the curious attendants were dismissed, leaving in the apartment, besides myself and interpreter, only the two children of the sick lady, of four and five years of age, and an old nurse. The patient answered my questions through the veil, without hesitation or prudery; even such as would have been considered by young ladies in Europe as not very agreeable. When I expressed a desire to feel her pulse, two pretty white hands were protruded from under the covering; and, when I asked to see her tongue, the patient slightly raised her veil, yet in such a manner as to allow me to obtain a glance of the features of a most lovely brunette, that could scarcely have reached her twentieth year. She, however, instantly after shrunk back under the drapery, like a snail into its shell, and requested I would now leave the room, and address any further questions to the nurse, who was well acquainted with her state. I was consequently conducted by the nurse into the *selamlick*, the antichamber of the master, and I was again treated with coffee and a pipe.*

"I was ultimately conducted into the presence of the Kiaja-Bey, who questioned me respecting his wife's state of health, and wished to know when she would be perfectly recovered, and if it would be necessary that I should visit her again? I answered, that the latter would not be necessary, and that the lady would be perfectly well in a few days, if the directions I had given were attended to. He testified his satisfaction with these answers by a motion of his head, and, after the honorary ceremony of coffee and pipes had once more been complied with, he directed the *hasnador* (treasurer) to hand over to me a purse of five hundred piastres. My prognosis was verified: on the third day the lady was perfectly recovered, and my reputation rose with all classes to the highest degree of confidence." (P. 34.)

"After a physician has visited the inmate of a harem, the usage of the country requires that he should send every morning to the master, to inquire how the *channem* (the gracious lady) has slept, and finds herself. This message is forwarded by the master to the invalid, in the name of the physician; and the lady returns her answer with thanks, and mentions at the same time when and at what hour she wishes to see him again. This ceremony is continued till the physician receives from the harem a silk shirt, a pair of silk drawers, an embroidered sash, an embroidered handkerchief, and a pair of embroidered socks. This is a token of thanks from the lady to the physician for her cure. The medicines are paid for by the husband at a later period, as well as the attendance, in case the fees have not been paid at the time of visiting." (P. 40.)

A striking mark of the general ignorance of the people concerning medicine, and of the ignorance and baseness of its ordinary professors, is furnished by the extraordinary value attached to the pulse as a means of diagnosis and prognosis.

"Nothing can give the doctor a higher place in the estimation of his patient than his drawing from the state of the pulse alone the whole of his judgments respecting the state of the malady. By means of it, he must not only know the complaint, but also whether and how the patient has slept; if he has taken any thing, and what this may be; the nature of the evacuations, &c. Every question the patient has to answer is painful to him, and with every query the estimation in which the physician was previously held obviously diminishes. At the very first visit the physician is expected to indicate, merely by feeling the pulse, the minute at which death will ensue, or when a favourable crisis will relieve the patient from all his sufferings. Nor is the opinion that feeling the pulse is the only thing necessary to the physician confined to the lower order, but is very prevalent among the Turks even of the highest rank. Of this the governor of Adrianople, Halihsh Pasha, afforded me a striking proof. On a visit to the Russian camp, after the peace, he entered the tent of General Paulin, attended by a numerous suite. Among the persons assembled were two other physicians, besides myself. Immediately after we had been introduced in this capacity to the pasha, he extended his arm to each of us in turn, and requested we would feel his pulse: this being complied with, he turned to the general, and pointed out to him the one he considered the best physician; this, he said, he had discovered from his manner of feeling the pulse, and wished them to make arrangements with him to enter into his service. This leads the cunning Greek practitioner to ascertain from the servants, in an indirect manner, the state of the patient, whose confidence is thus gained, and whose credulity is so much abused as to make him believe that the practitioner can, by feeling his pulse, see into the inmost recesses of his body." (P. 15.)

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* "I was much satisfied with this my first visit to a Turkish harem, and expected to meet with the same reception on every occasion; but I had knocked, on my first excursion, at the most liberal door, for I seldom after met with such easy access."

It is unnecessary to say that, in such a condition of the knowledge of medicine, its practice must be miserably defective, even in the hands of those who give the preference to ordinary medical measures over the weapons of superstition. Like the ignorant in other countries, the Turk, when he takes a *bona fide* medicine, loves to see some positive physical effect from it; and the larger the dose administered, he is, in general, the better satisfied. Emetics, however, are not approved of, and enemata are totally refused. It is customary, in the month of May, to undergo a course of medical treatment. This is usually commenced with a purgative, which is followed up for three or four weeks by tisans of the juices of different roots, as taraxacum, also by potions of whey, and, above all, by viper-broth, which the Turkish doctors regard as the best of all purifiers of the blood. The following account of a *consultation* between our author and a Persian physician may amuse our readers, and at the same time will give them some insight into the state of anatomical and therapeutical science in the East.

"At Magnesia, in Anatolia, I was requested to visit a distinguished Uelema, who was suffering from a decided hepatitis. I immediately opened a vein, and gave him every two hours two grains of calomel, which I had with me. The medicine given to him by the Persian doctor consisted of large jars of decoctions of plants, as the sickness, according to his decision, proceeded from a drying and consuming of the entrails. On the following day, shortly before my departure, I accidentally met the Persian physician at the bedside of the patient. He was a tall, spare man, with black hair and beard, an austere eye, and a fanatical look, which bespoke his hate and contempt for the unbeliever. It appeared to cost him a great effort to address me: at last, when I had asked the patient how he was, and he had admitted that he felt better after having taken my powder, the doctor said to me, 'Doest thou dare to say that his bowels are not diseased?' To this I assented. 'In what, then, are contained the bowels in the belly?'—'In a sac, in a skin.'—'It is false! They swim in a lake or pool: in this case the pool is dried up, and the entrails are nearly on fire: hence the intense thirst, the heat, the pain in the body, the dry tongue and skin, and scanty discharge of urine; and therefore thou hast dealt unjustly towards him, in depriving him of fluid blood, and in giving him solid instead of fluid medicines. To inflammation thou shouldst oppose moisture; to dropsy, dry remedies; heat should be expelled with cold, and cold with heat.'" (P. 68.)

A really valuable part of Turkish medicine, however, is the bath, the general use of which, with its accompanying operations of friction, stretching, pinching, and all the other manipulations of *massing* and *shampooing*, is of the highest benefit in the prevention and treatment of many diseases, more particularly in a country where the more ordinary mode of cure by internal remedies is almost always useless, if not injurious. The following is Dr. Oppenheim's account of the bath and mode of bathing.

"The public baths are beautiful stone buildings, covered with domes, and of elegant architecture; several of which are found in every town. They consist of large apartments, with marble floors. At the entrance there is a roomy hall, lighted from the roof, and having a large basin and fountain in the middle. Along the walls of this hall are ranged high and broad benches, covered with mattresses and cushions; and here the bather undresses, binds a silken cloth round his body, and puts on a pair of wooden sandals before he proceeds to the bathing rooms. The first of these is but moderately heated, and is intended to prepare the bather for the heat of the inner vaulted room (about 100° Fahrenheit,) which likewise receives light from the cupola. In the middle of this last-mentioned apartment there is a large square bench, raised a few inches above the floor, on which the bather reclines, while an attendant kneads for a considerable time every part of his body. After this operation, the bather rests for some time in this or in one of the adjoining recesses: these have a heated marble pavement, and large marble basins to receive the hot water from pipes fixed in the walls: properly speaking, this is the bathing apartment. After the bather has sufficiently recovered from the kneading operation, he stretches himself naked on the heated pavement, and his whole body is rubbed and washed with a piece of horse or camel-hair cloth, and the lather of scented soaps, and then washed clean with hot water; he is afterwards dried, and both head and body are wrapped in warm cotton clothes, and in this attire he returns to the first or outer hall, where he rests for half an hour on one of the couches, takes a cup of coffee or a glass of sherbert, and smokes a pipe: he then dresses, and returns home. The cost of this bath is very trifling, and must be so, since it is within the means of the lower order of the Turks, who use it frequently. The baths for the women are everywhere separated from those used by the other sex." (P. 18.)

As in some of the former instances, we find at once the miserable condition of medical knowledge and of morality strikingly illustrated by the account given, by Dr. Oppenheim, of the frequency of poisoning in Turkey, as well from ignorance as intention.

"As there is no medical police whatever in Turkey, the sale of poisons is not forbidden, and fatal cases of poisoning, arising out of the ignorance of the purchaser as well as seller, are not at all uncommon. The doctors who keep medicaments for sale give to every applicant whatever he asks for, and in any quantity. Sugar, salts, arsenic, &c. are heaped together in open chests and baskets. Arsenic is not only sold in the apothecaries' shops to any one who may apply for it, but the next article called for is weighed in the same scales, to which, perhaps, adheres poison enough to send the purchaser into the other world. When called into one of these wretches, made patients by their criminal negligence, the doctors, instead of feeling horror at the dreadful cramps and convulsions, unconcernedly shrug their shoulders, and leave him to his fate, declaring that he must be possessed by some evil spirit; while the surrounding relatives, the Turkish imans and dervises, as well as the Greek papas, stun the dying man with their cries.

"But premeditated poisonings are much more frequent than the accidental, and the native practitioners do not scruple to lend their ministry to these criminal transactions. According to the religious views of many Turks, crimes of this nature are not forbidden; as, in practising them, they are only endeavouring to be beforehead with their enemy, who is only watching for an opportunity to act in the very same manner with them: moreover, they consider that, if fate has not decreed the death of their enemy, any attempt to remove him will certainly miscarry, from some cause or other.

"But, if it is revolting to see an article of faith perverted in such a manner as to reconcile the mind to such crimes, how much more so is it to see them committed by Christians, who by no possible sophistry can reconcile them to themselves! But, unfortunately, it happens but too frequently that doctors, in the service of rich Turks, pachas, and the like, lend their aid to such misdeeds. It is, therefore, not at all advisable for a conscientious physician to enter into the service of a Turkish grandee, as his refusal to comply with such requests might not to be unattended with personal danger." (P. 29.)

And, indeed, our author would seem, from his own account, to have proved, by personal experience, to what a pitch of degradation the noble profession of physic is reduced in that barbarous country, and to what dangers they are exposed who venture to thwart the prejudices or to resist the crimes of its inhabitants: he was at one time invited by a great officer to aid him in getting rid of his enemies, by administering poison to them; at another—and probably on account of refusing to do so—he was himself nearly poisoned, having found, one morning, something better than two drachms of sublimate at the bottom of his coffee-cup!

With such a state of medicine and of its professors as above described, it will hardly be expected that Turkey can boast of many of the medical institutions, whether for the communication of scientific or practical knowledge, which adorn more civilized nations. The present sultan, it is true, has established, at Constantinople, some kind of a school for the instruction of young men in medicine and surgery, and has, as we have already mentioned, caused to be printed for its use a sort of Medical Cyclopædia in the Turkish language; but this is the only thing of the kind in the empire. Neither are there any hospitals in Turkey for the reception of the sick. The only establishments of this kind that exist are lunatic asylums; and it is a curious fact that these are not only found in considerable numbers, but some of them are of great extent and even magnificence. This circumstance is explained by the universal belief among the Turks, that insane persons are either *possessed* or are objects of divine influence: in either case they are deemed sacred, and are venerated accordingly.

"In most large Turkish towns there are asylums for persons afflicted with diseases of the mind, called in Turkey *Timaristan*, which do the greatest honour to the heart and understanding of the people, as the management and order observed in them are much beyond the progress of civilization in other matters. These institutions are situated in the vicinity of the great mosques, and consist of convenient though not very clean cells, built round a court with piazzas in front. The Sulemanie Lunatic Asylum at Constantinople, connected with the mosque of the Sultan Suleiman, as well as that of the Sultan Selim at Adrianople, are of considerable extent. The first is a square building of hewn stone, in the Moorish style of architecture, about 180 feet in length, 160 in breadth, and one story high; the interior is divided into two courts, surrounded by a marble colonnade, which gives admittance to the wards. The roofs are a series of cupolas, intersected by arched vaults, and the second court is embellished with a beautiful fountain.

"Lunatic hospitals of this kind, but on a smaller scale, are to be met with in every part of the kingdom, containing a hundred and sometimes even a greater number of patients. Idiots and epileptic patients constitute the greatest number; of maniacs there are but few. As persons afflicted with mental diseases are in this country held sacred, they are treated with attention and humanity, and are, in fact, in a much better condition than the inmates of many asylums among the Christians. These Imarets, or asylums, however, are often very inadequately endowed, or their resources not properly managed, and consequently it is not easy to procure at all times sufficient food for the inmates. In these cases they depend on the compassion of their fellow believers, by whom they are irregularly fed. On no occasion does a Turk tease an idiot; he may smile at his follies, but he never leaves him without having first bestowed an alms on him." (P. 107.)

The inmates of these asylums are, as has been stated in the foregoing extract, chiefly idiots, while maniacal patients are rarely observed; and this is a circumstance well meriting the attention of the medical philosopher and the moralist. Here is a vast empire, in which one form of mental infirmity prevails, almost to the exclusion of other forms, so common and even more predominant than idiocy in other countries. The causes of this striking fact seem well explained by our author.

"It is proved by experience that, the higher the point to which the cultivation of the mind has attained in a country, the more frequent are the cases of mental derangement, and that with the rising morality of a nation homicide decreases, while suicide increases; in other words, that, generally, homicide and suicide stand in inverse ratio. Turkey offers the most convincing proofs of the correctness of this statement. In a country where the mind is sunk into an incurable lethargy,—where civilization is unable to rise out of the abject degradation into which it has fallen,—many of the usual causes of aberration of the mind must necessarily be wanting; such as excessive study, deep and prolonged reflection on any one subject, and such-like. Drunkenness, which with us is so frequently the cause of deranging the faculties of the mind, is unknown among the Turks, from their complete abstinence from spirituous liquors. By marrying when very young, they are enabled to satisfy the earliest desires for sexual connexion; and their imagination is never excited by obscene pictures or reading, nor their desires prematurely called forth by stimulating food; lastly, unrequited love, which has so baneful an effect on the sensorium, is unknown in the East, as well as romantic love in general. Here the virgin surrenders without a sacrifice, man conquers without a struggle, enjoys without delicacy, and passes suddenly from eager desire to satiety. Jealousy, the torture of man in Europe, is consequently unknown to the Turk; and if in cases of adultery, his vengeance falls with such dreadful weight upon his wife, as well as on her seducer,—he is not spurred on by jealousy, but by wrath against the contemner of his faith as well as of his person; for, according to his belief, whoever touches his wife dishonours his religion. The resignation enjoined to the Turk by his religion, as well as the fatalism in which he believes without the slightest scepticism, also contributes, in no small degree, to prevent the loss of property, dignity, or office, the disappointment of hopes, unsuccessful speculations, the death of a beloved person, &c., from producing mental derangement. Examples of Musselmen being driven to despair, madness, or self-destruction, by misfortune, are certainly among the rarest occurrences. That, however, the reason of this is to be sought rather in the religion than in the low state of mental cultivation, is proved by the circumstance that, among the Christian inhabitants of the East, Greeks, Armenians, &c., who are but very little above the Mahometans in mental cultivation, diseases of the mind are comparatively much more frequent, and that cases of suicide, though but of rare occurrence, are however not quite unknown." (P. 99.)

If we can thus satisfactorily explain the comparative infrequency of furious madness or acute melancholia among the Turks, we are enabled, with at least equal certainty, to account for the great prevalence of idiocy among them; a prevalence which Dr. Oppenheim regards as greater than is to be met with in any other country. It is true that the apparent amount of prevalence is greater than the real, since we are told that a great many persons *feign* this disease; some, that they may enjoy the advantages attendant on the victims of so sacred a visitation; others, that they may escape the punishment of political offences, real or imputed, or that they may save their goods or persons from envy and revenge. Of the real idiots a certain portion are so from birth, but a good many are brought to this state through the use of opium and other narcotic poisons; particularly children, who are intentionally kept under the combined influence of such means, until the effect is produced.

As a general rule, the Turks, both men and women, enjoy remarkably good health, owing in a great measure to the absence of many of the arts and artificial modes of life which exert so great an influence over the inhabitants of more civilized countries. It is not, however, ascertained whether they are a long-lived race or not, owing to the total want of mortuary registers. Women begin to look old at an early period of life, owing, no doubt, partly at least, to the precocious development of some of the principal functions. "They have the catamenia about the tenth year, they marry in the twelfth, soon become mothers, have many children, cease to menstruate at thirty, and speedily fade into old age." (P. 54.) Their labours are in general remarkably easy, insomuch that even women of the upper ranks are on their feet on the second day, and on the third leave their chamber to take a bath. The mothers invariably nurse their children, but the ladies consign this task to a wet-nurse during the night. It is the law of Mahomet that the child should be suckled two years, if it will take the breast so long; but this term may be abridged with permission of the husband. During the period of nursing, sexual intercourse is strictly forbidden by the Koran. Abortion, intentionally procured, is extremely common, particularly among the higher ranks: it is not regarded as criminal by the Mohammedan law until the fifth month of pregnancy, at which period the fœtus is considered to become possessed of life.

We shall conclude this review of the State of Medicine in Turkey by noticing such of the diseases, whether medical or surgical, as present, in the account given of them by the author, anything interesting, either as regards pathology or practice.

Vaccination was many years since introduced into Turkey by Dr. De Carro, of Vienna, but has as yet made but little progress in the interior of the kingdom. The present sultan has had his own children vaccinated by Dr. Auban, a French physician. Inoculation of the small-pox, first practised in Turkey, is in much more general use: it is chiefly in the hands of the women, who operate by making some superficial incisions with a razor, and then placing in these either a thread impregnated with the variolous fluid, or some of the pulverised scabs.

Scarlatina appeared to Dr. Oppenheim very prevalent and very fatal in Turkey; but the most interesting circumstance respecting it stated by him, is what he regards as a marked instance of the prophylactic powers of belladonna on the large scale.

> "The disease had also broken out among the troops in Monastir, where no separation of the unhealthy from the healthy was practicable; several soldiers had been carried off, and the disease had even snatched a victim from the grand vizir's harem. The vizir, who loved his troops as his children, became alarmed; when I thought it my duty to make him acquainted with our preventive measures. He issued an order to his soldiers to take carefully a medicine that would be prepared for them; and, as he set the example by taking it himself from the hands of his physician, they obeyed with less reluctance. As I had to fear that the counting of the drops would not be properly attended to, I preferred the form of pills, in spite of the opposition of the apothecaries, who for a whole week were engaged in nothing else than making pills, although only two battalions (1,200 men) of regular troops were at that time in the town. I directed one pound of extract of liquorice to be mixed with thirty-six grains of extract of belladonna, and the mass to be made into two-grain pills, of which each soldier was to take five morning and evening. I entertained the hope that this dose, though smaller than usually prescribed, would have the desired effect with men who had never taken any medicine, and who all were between the ages of fifteen and twenty-five; and the result answered my expectation; for, although the epidemic continued to rage in the city, and the soldiers were quartered on the Christian and Jewish part of the population, only twelve of all that had taken the belladonna fell sick, of which, however, one-half died. In ten days previously to the administering of the medicine more than forty cases of sickness had been entered on the sick-list." (P. 57.)

Measles were never observed by our author, nor could he find, from his medical friends, that they prevailed in the country. Worms are of frequent occurrence among children, and are cured by many popular remedies; among others, the powdered kernel of the wild apricot. Dr. O. met with six cases of Guinea-worm. Hydrocephalus is said to be common; but internal scrofula and rickets are decidedly rarer than among European children; a circumstance which our author attributes to the use of a wholesome diet, chiefly rice, and the enjoyment of a purer air.

In all nervous and convulsive diseases, the ancient remedy, *Bezoarstone*, enjoys the highest reputation, and is indeed in such request that a profitable trade is driven in manufacturing artificial substitutes for it. Spitting on the affected part and also a sort of animal magnetism are favourite and effectual remedies. The manipulations of an Asian Dervish, noticed in the following account, would not discredit a disciple of Mesmer himself.

"The patient was suffering from headache, and sat in the Turkish fashion on the ground. The operator knelt before him, stroked his forehead with the thumbs of both hands from within outwards, then drew the skin in folds or wrinkles in an opposite direction, pressing it at the same time forcibly, repeated a prayer, spit two or three times on the ground, then on the affected part, and at last rose up, convinced, as well as the patient, that the complaint would speedily vanish." (P. 70.)

Intermittent fever, in all its forms, is extremely common, and is by the native doctors attributed to the presence of an evil spirit, and attempted to be cured by exorcism; the same opinions and practice hold with regard to gout and rheumatism. Quinine is however used by the Greek and Turkish doctors; but can hardly be obtained pure.

The following account of a disease endemic in Turkey, and which Dr. Oppenheim considers as having hitherto escaped the observation of European physicians, is curious. We agree with him in regarding it as unknown in northern Europe at least. He proposes to call it *Rheumatische Knollenkrankheit* (literally "the rheumatic knobby disease;") but we have great doubts of its rheumatic nature. It reminds us somewhat of a peculiar acute disease of the lymphatics of the extremities prevalent in the West Indies, and which appears, in some cases at least, to be analogous to, if not the actual precursor of the elephantiasis or Barbadoes leg.

"I noticed a particular endemic disease, which I believe has hitherto escaped observation, and, as it is probably closely related to rheumatism, I feel inclined to give it the foregoing name. Round hard tumours will frequently rise in a single night, though the patient may have retired to rest in perfect health, sometimes without any ascribable cause, and at others after suppressed perspiration, or cold caught on sudden changes of temperature; they always make their appearance between two joints, or at least at some distance from the joint, and constantly on the flexor side of the limb; the tumours, as before mentioned, are round, hard, the extreme circumference undefined, not easily moved, and very painful when touched; the skin remains unchanged and without inflammation, and the temperature is not heightened; they vary in dimension from that of a hazel-nut to that of the fist, and attain this size in the course of a few hours; they then remain stationary. These tumours more frequently occur in the upper than in the lower extremities, and again more frequently in the forearm and leg than in the upper portions of the same limbs; very frequently they appear in the palm of the hand, which then swells up to the form of a ball, also in the sole of the foot, and on the fingers and toes: sometimes only one tumour appears at the same time, but more commonly several.

"Under this disease the general health is unchanged; all the functions are regularly performed; digestion alone seems in a small degree disturbed, the tongue being loaded, &c. This disease offers no premonitory symptoms. The cellular texture immediately surrounding the muscles appears to be the seat of it, in which a local, abnormal, excited or more probably suppressed activity of the lymphatic vessels, produces an exudation. Young, strong, and robust persons are more subject to this disease than the aged, weakly, and cachectic; men also are more liable than women; children are rarely or never afflicted with it.

"Persons not accustomed to the climate are said to be very liable to it. The prognosis is very favourable if assistance be speedily called in; but if neglected, these tumours will continue during the whole life of the patient, and by their pressure occasion pain at every motion of the limb; stiffness and incapacity of bending the joint follows, and, at last, total inactivity and continued pressure bring on decay.

"The remedy used by the natives is as simple as it is effective, and consists in uninterruptedly rubbing and kneading the part from below upwards, in semicircular movements, either with the first joint of both thumbs or with the palm of the hand. The rubbing is continued in spite of the suffering and complaining of the patient till the tumour has completely disappeared, and is frequently continued for four or six hours and sometimes longer. The operation is most effective when performed in the Turkish sweating-bath. A repetition of the operation is not esteemed necessary, though returns of the disease are not unfrequent. In almost every place there are some persons, most frequently women, who are exclusively engaged in this rubbing process. As a matter of course, mystic incantations are not omitted in the operation. In old standing cases, no remedies whatever are attempted, although very probably strong stimulating means would effect the reabsorption.” (P. 74.)

In an account of the state of health and disease in Turkey, it would be impossible to overlook the well-known habit of opium-eating and its effects. Drinking wine being forbidden by the laws of the prophet, the habit of drunkenness is rare in Turkey; but as the culprit is equally guilty and equally obnoxious to punishment, whether he drinks little or much, it commonly happens, our author says, that the person who once commits a debauch, becomes a perfect drunkard. And although not forbidden, like wine-drinking, by the Koran, opium-eating almost invariably leads to the same extravagant excess and melancholy results. Once begun, it is hardly ever relinquished; once a *Theriaki* always a *Theriaki*.

“The causes leading to the use of opium are many, and among them may be reckoned the following: long-continued diarrhœa, as a remedy for which opium is used in the first instance, and its use afterwards continued from habit; chronic coughs, in which opium is also used as a popular medicine; habitual drunkards also frequently have recourse to opium as a new stimulus, after they have abjured wine in some fit of repentance. Persons holding high offices or dignities in the state also have recourse to opium, when the preservation of their character forbids them the use of wine: some very strict believers also take opium as a restorative in cases of great exertion, as the *Tatars* (couriers,) who travel with astonishing celerity.

“Opium-eaters generally begin with doses of from half a grain to two grains, and gradually increase the quantity till it amounts to two drachms and sometimes more a day; they usually take the opium in pills, but avoid drinking any water after having swallowed them, as this is said to produce violent cholic: to make it more palatable, it is sometimes mixed with syrups or thickened juices; but in this form it is less intoxicating and resembles mead; it is then taken with a spoon or is dried in small cakes, with the words ‘*Mash Allah*,’ ‘the work of God,’ imprinted on them.

“The effect of the opium manifests itself one or two hours after it has been taken, and lasts for four or six hours, according to the dose taken and the idiosyncracy of the subject. In persons accustomed to take it, it produces a high degree of animation, which the *Theriaki* (opium-eaters) represent as the acme of happiness.

“The habitual opium-eater is instantly recognized by his appearance. A total attenuation of body, a withered, yellow countenance, a lame gait, a bending of the spine, frequently to such a degree as to assume a circular form, and glossy, deep sunken eyes, betray him at the first glance. The digestive organs are in the highest degree disturbed, the sufferer eats scarcely any thing, and has hardly one evacuation in a week: his mental and bodily powers are destroyed,—he is impotent. By degrees, as the habit becomes more confirmed, his strength continues decreasing, the craving for the stimulus becomes ever greater, and, to produce the desired effect, the dose must constantly be augmented.

“When the dose of two or three drachms a day no longer produces the beatific intoxication so eagerly sought by the Opiophagi, they mix the opium with [corrosive] *sublimate*, increasing the quantity till it reaches to ten grains a day; it then acts as a stimulant.

“After long indulgence the opium-eater becomes subject to nervous or neuralgic pains, to which opium itself brings no relief. These people seldom attain the age of forty, if they have begun to use opium at an early age. The fasts in the month of Ramasan are for them fraught with the most dreadful tortures, as during the whole of that month they are not allowed to take any thing during the day. It is said that, to assuage their sufferings, they swallow, before the morning prayer, besides the usual dose, a certain number of other doses, each wrapped up in its particular paper, having previously calculated the time when each envelope shall be unfolded and allow the pill to produce the effects of their usual allowance. When this baneful habit has become confirmed, it is almost impossible to break it off; the torments of the opium-eater, when deprived of this stimulant, are as dreadful as his bliss is complete when he has taken it; to him night brings the torments of hell, day the bliss of paradise. Those who do make the attempt to discontinue the use of opium, usually mix it with wax, and daily diminishing the quantity of the opium, the pill at last contains nothing but wax." (P. 93.)

We shall conclude this article with a few remarks on the state of surgery in Turkey, which Dr. Oppenheim informs us is even in a still lower state than that of medicine, and the chief cause of which he justly refers to the total unacquaintance of the practitioners with anatomical knowledge. And here, as in almost every thing else, the Mahommedan religion interferes most injuriously. Not only is dissection forbidden by the Koran, as we have already said, but almost all the subjects of surgery are as it were *tabooed* by the debasing superstition which it enforces. Every injured person, whether with open wounds or not, is unclean, and all unnecessary spilling of blood is rigidly forbidden. When to these causes we add the considerations that to the Turks the life of any man is of small value, while to all death is a blessing, we need not be surprised to learn that operative surgery, at least, is at the lowest possible ebb in this wretched country.

Notwithstanding their prejudices and the dogmas of the Koran, still the Turkish surgeons do draw blood, sometimes even more plentifully than we ourselves should be inclined to do as a remedy, and also perform bloody operations. Scarification is a frequent and favourite remedy in many diseases, and is performed in the primitive fashion, originally common among most uncivilized nations, and still not quite obsolete, we believe, in the highlands and islands of Scotland, viz. by making incision with a razor and using the mouth, and a sheep's horn as an exhausting means for extracting the blood. Venesection is also in frequent use, and is performed by means of a round-pointed lancet contained in a sheath, from which it is projected, by means of a bow or spring, to a certain depth into the vein.

"Many so-called surgeons confine their practice to the treatment of one particular disease, or to one particular kind of operation: there are consequently, as there used to be in Europe, bone-setters, operators for rupture, cataract, stone, &c. and who frequently, in spite of their ignorance, enjoy considerable fame and confidence. The eye-doctors are principally Persians and Arabians; the operators for rupture and stone, as well as the bone-setters, are for the most part *Moreots* and *Zagoreots*. The method of performing these operations is generally inherited from father to son, and is consequently an heir loom of a few families. On this account they also conceal their mode of treatment as much as possible, and allow neither the initiated nor the uninitiated to be present at their operations; even the nearest relatives are dismissed from the apartment, and the operator remains alone with the patient, seldom admitting an assistant. Notwithstanding the express command of the Grand Vizier to the surgeons, to admit me to all their operations, I succeeded but in very few instances to be present: every kind of excuse to avoid complying with this order was put in practice, and even the patients were induced to request that I should not be admitted to the operation. The most ostentatious of all these operators were the bone-setters, who unblushingly asserted that they could cure any fracture, however complicated and however much the bones might be splintered; and that the limb would suffer injury neither in form nor utility, and on this ground they claim the superiority of their own surgery over the European, as their certainty of healing the limb renders amputation unnecessary, to which we are obliged to have recourse when unable to heal a fracture.

"Exaggerated, boasting, and bombastic as these assertions are, it is however not to be denied that, with all their ignorance, they treat fractures with very great success. Their method of placing the limb in its proper position, and keeping it in that position during the cure, by means of a gypsum case or envelope, is well known." (P. 114.)

"The treatment of luxations, the most difficult part of surgery, and which requires the most accurate knowledge of anatomy, is engrossed principally by the bone-setters and some female practitioners. Several old luxations of the shoulder and elbow which I have had to treat, gave me no high opinion of the skill of these people." (P. 117.)

"Cases of hernia are common, not only among the lower order of the Turks, but also among the higher classes, and often proved fatal from bad treatment or neglect. The early age at which they begin to ride, and the constant practice of this exercise, on ill-constructed saddles and rough roads, may be assigned as the principal cause of rupture among them. In no part of the empire are there any trusses manufactured: some of the grandees procure them from Vienna, France, or Italy, but, after long use, repairs, and the alterations they are made to undergo, they resemble any thing as much as what they were originally intended for. The operation for strangulated hernia is unknown to the Turkish surgeons, but they profess to cure radically such cases as are not strangulated, and this they effect by ligature and the actual cautery.

"I had an opportunity of seeing this operation performed in Jenitschar (Larissa), by a surgeon from Sagor named Michalaki. The patient was a powerful man of rather more than forty, who had suffered for a considerable time from an inguinal rupture, which by its increase in size had now become very inconvenient in riding. After the operator had convinced himself that the rupture admitted of being pushed back, the patient was secured, with his arms crossed, to a board, and this so placed that the feet were directed upwards and the head down. With one hand the operator held back the rupture, and with the other he made with a razor an incision of about three inches in length, extending from about one inch above to two inches below Poupart's ligament. He then, as he expressed himself, got sight of a bladder (the hernial sac); this he drew forward with both hands as far as he could; he then passed a strong silken thread under this sac close to the inguinal ring, and having secured it, cut through the sac below the ligature; but he had included the spermatic cord in the ligature, so that the testicle must afterwards have decayed." (P. 117-119.)

"The stone is of frequent occurrence in some provinces of Turkey, namely, Macedonia, Epirus, Thessaly, &c., and in some families is even an hereditary disease. The method of the Turkish stone-cutters is as follows: The sick person suspected of having a stone in the bladder, is examined by the operator who introduces a finger into the anus, and feels about the perinæum with the other. If in this manner he can find a stone, he determines on the operation. His method is the old Celsian. He knows of neither sound, probe, nor forceps. His whole stock of instruments consists of a razor, for the incision, and a blunt indented hook, which is used when the stone is too large for the aperture or presents itself in such a manner that it cannot be removed by pressure or by the finger. When the patient has been secured and his legs held up in such a position that the perinæum is distended, the operator introduces his forefinger into the anus, presses the stone downwards, and makes an incision on the part where it most projects, consequently without any consideration whether it be on the right or the left side of the anus; the incision is made at one cut through the skin, fat, cellular texture, and the coats of the bladder, the operator regulating the length of the wound by the size of the stone, which after the incision has been made springs forward, on the pressure of the finger in the anus, just as is the case in cataracts when the incision of the cornea is made. Should the stone, however, present itself unfavourably for extraction, or be too large for the orifice of the incision, the operator has then recourse to the above-mentioned hook indented on the inside, and with this he endeavours to bring the most favourable diameter of the stone to the aperture, and then extracts it with more or less violence. But it sometimes occurs that even with the assistance of the hook, the operator fails in extracting the stone, and that then the operation has been undertaken in vain: in this case the patient is left to his fate. After the stone has been extracted, the wound is stopped with cotton, on which some mild salve has been spread, and the business of the operator is ended. No after treatment takes place, nor are any means used to prevent inflammation or to remove it, if it has already taken place; no particular rule of diet is followed; on the contrary, the patient is denied the rest of which he is so much in need of, and for the first twenty-four hours after the operation he is prevented from sleeping by the uproar and noise of the guests aided by discordant music; and he is even awaked, if, in spite of all this, sleep should prevail. Whoever happens to be in the sick chamber at sun-set is not allowed to leave it before sun-rise, nor are visitors denied admittance at a later hour. The recovery is usually complete in from ten days to a fortnight, and according to the assertion of the operator two-thirds of the persons operated on recover. Of the causes of death in such cases my informant had never thought, had no idea of inflammation, and never knew death from either internal or external hemorrhage. He showed me several stones of considerable size, which he had removed by the operation, and the former possessors of which were still alive." (P. 121-123.)

With these extracts we conclude this highly interesting work; and we cannot take our leave of it without expressing our opinion, in strong terms, of the intelligence, industry, and discrimination displayed by its learned author in the collecting and arranging his materials in their present form. The contemplation of such a mass of ignorance, superstition, and immorality as is contained in the preceding pages cannot fail to reconcile us to much that is irksome in our own lot, to make us grateful and proud that it is our good fortune to know and to practice medicine as it exists among ourselves, and to cheer us with the hope that, since the labours of our predecessors in the more civilized nations of Europe have already advanced it to a state of comparative perfection when contrasted with that in which it exists in Turkey, the exertions of our successors may go still further, and with more rapid strides, to bring it yet nearer to the point of scientific certainty and practical precision, which every bevevolent mind must so ardently desire.

Note. We have just noticed in one of the German Journals (Zeitschrift, &c. Feb. 1837,) that Chomel's work on Pathology has been translated into Turkish by command of the sultan, and printed for the use of the students of the medical school of Constantinople at the imperial press. The translator is Osman-Effendi, son of one of the most distinguished Ulemas. The price of the volume is eight piastres, (189 groschen.)—*British and For. Med. Rev.*

ANATOMY AND PHYSIOLOGY.

ON THE STRUCTURE OF THE RETINA IN MAN, AND THE MAMMALIA GENERALLY.

By Dr. C. M. Gottsche, of Altona.

[British and Foreign Medical Review.]

About two years and a half since, Dr. Gottsche made, in Copenhagen, the interesting discovery that a distinct nervous radiation might be seen in the retina of the calf; and, after having shown, by repeated examination in different individuals of the vertebrate classes, that the appearance was constant, it was lastly sought for in the human eye, and discovered.

Authors generally describe that part of the retina which they conceive to be the expansion of the optic nerve as a *medullary expansion*, but the filamentous structure in man is denied by all. Such is the account, at least, given by Meckel, Burdach, Hildebrandt, Weber, &c. Amongst the mammalia, Arnold has found the fibrillæ in the hare and pig alone, but denies their existence in the calf, &c. This description of the distribution of the optic nerve would make it an exception to what is considered an essential characteristic of the terminations of the other nerves of the senses. It is not practicable, in the fresh eyes of mammalia, to show this filamentous structure by simple dissection; therefore, Dr. Gottsche had recourse to the assistance afforded by chemical reagents; and the chief secret consisted in softening and removing the compact layer which lay beneath the nervous fasciculi. Maceration appeared to be a means adapted to effect this, but by it the fibrillæ are only preserved immediately around the circumference of the optic nerve, or at best as far as the middle of the retina. Subsequently, solutions of carbonate and nitrate of potassa were employed; but nothing appeared to answer the purpose so well as a solution of one part of corrosive sublimate in three parts of sulphuric æther. After a sufficient maceration, ten minutes' manipulation with a camel-hair pencil and the above solution are sufficient to produce a most perfect and beautiful preparation of the radiation of the ultimate filaments of the optic nerve.

An eye being procured, as fresh as may be, all the external tunics, including the choroid, are removed; a narrow rim of sclerotic immediately surrounding the optic nerve being alone left. The retina is now loosened from the hyaloid membrane, and spread out with its *inner* surface upon a piece of black paper, or, which is better, upon a piece of glass painted black on one side; it will be found necessary to snip the retina at one part of its circumference, in order that it may lie smooth and flat. If the eye be that of a recently killed animal, it is advantageous to macerate the retina, thus prepared, for a time in water. The period of maceration must be decided by the temperature of the weather, and varies from one day to eight: the requisite amount of softening may be ascertained by means of a camel-hair pencil. As soon as the compact layer above mentioned can be wiped away in small fragments from around the optic nerve, the preparation may then be proceeded with. The retina being now spread out so as to lie perfectly smooth, a few drops of the sublimate solution are allowed to spread themselves over its surface, which is at the same time gently brushed with the pencil: by a repetition of this process, the compact layer yields, and the small flakes are washed away by dropping water or alcohol on the surface. If the preparation be now macerated in spirit for a week, and again cleansed, it is fitted for microscopical examination.

If a fresh eye be treated in the above manner, it is rendered unfit for the desired object by the hardening of the dense layer already spoken of, and the increased firmness of connexion between it and the nervous fibrils.

Pfaff's Practische und Kritische Mittheilungen, &c. Heft xxiv. 1836.

CASE OF LOSS OF POWER OF VOLITION OVER SOME OF THE CEREBRAL NERVES.

By Dr. Magnus, of Berlin.

[From the same.]

A young married woman, æt. 25, lost her husband before the birth of her first child, and the latter died soon after birth. During her recovery, the lochial discharge was suddenly suppressed in consequence of a violent fit of anger, which was followed by hemiplegia and symptoms of insanity. The case was viewed as apoplexy by her medical attendant, and, under antiphlogistic treatment, she gradually recovered. In the month of October, 1835, she was exposed to cold during the flow of the menses, which were in consequence partially suppressed, and during the next four weeks she continued to complain, without, however, being able to specify precisely what ailed her. At her next period the menses did not appear, but she had an attack similar to that under which she had suffered in childbed. The power of speech was totally lost, but the hemiplegia was not so complete as formerly. She was treated on the same principles, and in some measure with success: the weakness in the extremities was almost completely removed, but the power of speech did not return.

Dr. Magnus was called to attend her in June, 1836. The patient's face was perfectly smooth, without the slightest wrinkle, and totally devoid of expression She was unable to retain the saliva, which flowed through the half-open mouth; speech was completely lost, but the patient could produce an inarticulate sound, without, however, having any power of modifying it. She had no command over the voluntary muscles of the face; she could not contract the brows nor elevate the alæ nasæ; but the eyelids, although resisting the influence of the will, closed involuntarily on the sudden approach of a body towards the eye, or on the application of a strong light; the iris retained its motions in full integrity. The patient possessed the power of motion of the lower jaw, but its movements were slower and less energetic than in the normal state. The tongue did not obey the will; the patient could neither protrude it from the mouth, nor move it within its cavity. In mastication, she was obliged to push the bolus from side to side with the finger, and then to push it backwards till it came within the action of the involuntary muscles, when all the muscular motions connected with deglutition followed exactly as in the healthy state. The sense of taste remained unimpaired. The muscles of the face, although insensible to volition, were affected by some states of the mind. The patient smiled and laughed, and the muscular motions thus produced were exactly the same as those observed in the normal condition. The sound of her laughter was different from the inarticulate tones she at other times produced, and, although partaking somewhat of the nature of a grunt, it underwent modification, showing that the muscles of the larynx, although beyond the reach of volition, were capable of being affected by internal stimulus.

The case is important, as proving that the closing of the eyelids, on the sudden approach of a foreign body, is involuntary; but, perhaps, the most remarkable feature of the case consists in the power of smiling and laughing, which the patient retained, notwithstanding the complete loss of voluntary power over those muscles which are subservient to the expression of these emotions. This phenomenon admits of two modes of explanation: first, the stimulus which produces in the brain the conception of the laughable may pass directly to the roots of the nerves of motion, without affecting in its passage the organ of the will. But, as this theory, according to Dr. Magnus, would suppose a distinct organ of the will, which, in the present state of our knowledge, cannot be recognized, he adopts the second theory, which supposes that, either by compression or some other cause, the texture of the nerves had undergone a change, by which their conducting powers were so altered that, whilst they refused to convey the stimulus of the will, they nevertheless remained obedient to the involuntary stimulus of the conception of the ridiculous.

Müller's Archiv. fur Anatomie, &c. Jahrgang, 1837. Heft ii.

PATHOLOGY AND THERAPEUTICS.

ON THE ACTION OF CERTAIN MEDICINES ON THE HEART.

The following observations are from the pen of Dr. Lombard of Geneva.

1. *Assafœtida.*—This is one of the most potent remedies against the irregularities of the heart's actions, when they depend upon a nervous or functional cause. Even when there is organic disease present, the internal use of assafœtida is often productive of very decided benefit, by checking, or at least moderating the palpitations, and by inducing a state of calm. When we prescribe the internal use of the medicine, we may administer it either in the form of pill or of mixture. Three grains or thereabouts, taken twice or thrice a day, will be a sufficient dose in most cases. The most convenient form of employing it externally, is that of

a plaster applied over the region of the heart. The formula recomm
Dr. Lombard is as follows:—

Assafœtida, ℥ij.
Gum ammoniac, ℈j.
Turpentine, gutt. vj.
Yellow wax, q. s.—Misce.

2. *Camphor.*—Given in doses of from three to twelve grains has a very decided influence in moderating any violent action of the heart. It also assists the heart in expelling its contents, when it is overloaded with blood, and cannot easily discharge it at each contraction of its ventricles. Hence in many cases of dilatation, it is of great and very decided benefit. The following observations are so good, that we shall extract them in the author's words:—"This state of discomfort—from the heart not being able to expel the blood from its cavities, in consequence of their imperfect contractions—which is sometimes temporary, sometimes permanent, appears to be properly modified by camphor. A few days, even a few hours, have sufficed under this treatment to regulate the most violent ventricular contractions and shortness of breath, and irregular circulation ceases after the administration of a few grains of camphor. Is the action of this medicine sedative, or stimulating? This is a question on which I cannot presume to decide; but it is evident, after the researches I have made on the treatment of diseases of the heart, that care must be taken not to prescribe lowering medicines; and that the heart hypertrophied, but with obstacles at the orifice, or with dilatation of its cavities, must be considered as a muscle fatigued by the continual efforts requisite to maintain an equilibrium between the arrival and departure of this circulatory fluid; so that it *should be* strengthened, and its weakness counteracted by tonic medicines, and its action regulated by antispasmodic stimulants. Thence the indication of steel and quinine in the first case, camphor and assafœtida in the second."

3. *Digitalis.*—The sedative action of this drug is, at best, most uncertain and unsatisfactory. Its successful administration seems to depend upon attention to a multidude of circumstances, such as the state of the stomach, the mode of living, the amount of the dose exhibited, and so forth. If the stomach is in a state of irritation, digitalis seems to exert little or no influence on the action of the heart. Under these circumstances it very often induces sickness, nausea, and even vomiting. If this disagreeable effect is induced, we should try to arrest it by effervescing draughts; but if these fail, the use of certain antispasmodics, such as æther, oxide of zinc, the nitrate of bismuth, or even opium itself, may be found necessary.

If digitalis is administered with the view of subduing palpitations of the heart, the doses should be rather large, than small and frequently repeated. A grain, for example, of the powdered leaves, or three spoonsful of an infusion, (a scruple of the leaves to six ounces of water,) may be given three or four times a day. The infusion is certainly the most potent preparation, and the one on which we can best depend. It is however more apt to induce nausea than the dry powder in the form of pills. As respects the corrigents of digitalis, we find the following remark of Dr. Lombard: "What best succeeds to avoid or allay the symptoms of saturation, is calcined magnesia, subnitrate of bismuth, subcarbonate of steel, and oxide of zinc. Several English practitioners have prescribed powder of calcined magnesia. I have always employed it with subnitrate of bismuth, so that I am unable to remark on its action when administered alone. Subcarbonate of steel is the best adjuvant of digitalis; to this medicine may be attributed the absence of accidents to persons who have taken digitalis daily, during several months. Oxide of zinc also arrests the symptoms of saturation of digitalis."

4. *Polygala Senega.*—This drug is perhaps too little used by medical men. Taken as an infusion, says Dr. Lombard, it appears to diminish the circulation, and regulate the ventricular contractions.

In persons affected with diseases of the heart, dilatation of its cavities, polygala has corrected the irregularity of the heart's pulsations, and has lessened the sanguine stasis which seemed to threaten the dissolution of the patient. The doses given, vary from twelve to twenty-four grains of polygala in the course of the day; an infusion prepared with a drachm, and four ounces of water, has been given in four-and-twenty hours.—*Medico-Chir. Rev.*

GENERAL REMARKS ON THE DISEASES OF CHILDREN.

By M. Baudelocque.

We have mentioned in the preceding article that M. Baudelocque is attached to the large Hôpital des Enfans in the French metropolis. The chronic and acute cases are arranged in distinct wards, and the younger children, under five years of age, are kept apart from the older ones. There is a particular ward for those who are affected with nervous or convulsive diseases, such as chorea, epilepsy, &c.

The class of chronic diseases which is perhaps more attended to than any other, is that of scrofulous, and also of cutaneous complaints. M. Baudelocque has devoted great time and labour to the study of these diseases, and the success which attends his practice is the best guarantee of his judgment and skill.

In reference to the general mode of treatment which M. Baudelocque follows in acute diseases of children, it deserves to be noticed that he is not friendly to the adoption of very active measures, except in a limited number of cases. Large bleedings, excessive purgation, or vomiting, he particularly deprecates; remarking, very justly, that in infancy and early youth there is, so to speak, such a strong tendency to health, that when it is disturbed even to a great degree, all that is generally required is to remove any impediments to Nature's own efforts, or at most to moderate their force, if excessive.

For the cure of bronchitis, angina, and in general all eruptive diseases, he trusts chiefly to quietude, low diet, and the withdrawal of all stimuli. Gentle purgatives and diaphoretics may be advantageously administered at the same time.

In hooping cough, he seldom bleeds, unless there be very evident signs of pulmonic inflammation, or the patients be very plethoric and strong. He puts them on spare light food, exhibits small doses of oxide of antimony, and gives a cough emulsion. Under this simple treatment, most of his cases do well.

Even in scarlatina and measles occurring in young children, he seldom employs leeches. It deserves, however, to be mentioned that Dr. Baudelocque has recourse to depletory measures much more frequently and also to a greater extent in his private than in his hospital practice; the children of the poor being seldom so full-blooded and so active as those of the more wealthy classes. The following sentence is full of sound practical wisdom.

Dr. B. does not think an acute malady can be got rid of by profuse bleeding. Its intensity may be diminished, its complications decreased, but to arrest it suddenly by bleeding is not possible. In a typhus fever, for instance, neither sanguine evacuations, nor purgatives, can arrest the progress of the disease; it must have its course, and if bleeding be not injurious, it is at all events useless.

With respect to the general plan of treatment pursued by Dr. Baudelocque in the chronic diseases of children, he has great confidence in the continued use of mild warm aperient medicines. He usually administers a purgative draught twice a week. If the child is taking any other medicine at the same time, such as iodine, arseniate of soda, &c., it is always omitted on those days on which the purgative is given.

The purgative plan of treatment—a dose being exhibited twice a week—may be persevered in for a great length of time, not only without any pernicious effect, but with the most positive and decided benefit. Certain diseases have been completely cured by this simple medication; in others the symptoms are very quickly amended, and then the cure is easily effected by other means. The favourite form of aperient medicine which Dr. Baudelocque administers to children is strong senna tea mixed with coffee, to which a little milk may be added. The young patients take it without reluctance, and it usually acts briskly on the bowels.

Manna or sulphate of soda are sometimes substituted for senna.

The oxymel of squills is one of the best and most convenient remedies for coughs and most pectoral affections.

The alterative medicines which Dr. B. most frequently uses are iodine, extract of hemlock, arseniate of soda, barytes, &c. The food allowed at the same time is ample and nourishing. Animal food, and even wine or malt liquor, are often quite necessary in cases of chronic disease, especially when the child is of a lymphatic and scrofulous constitution.—*Ibid.*

UTERINE DISEASES.

To the Editor of the Medical Gazette.

Sir,—I take the liberty of sending you the three following cases of uterine affection, which belong to a class of complaints as important, perhaps, as any a medical man is called upon to treat, as they but too frequently render the lives of those afflicted with them completely wretched, by the loss of health, and the mind being worn down by bodily pain and uneasiness, and by the apprehension of an incurable disease being established. Should you deem them worth a place in your Gazette, they are quite at your service.

The first case occurred when I was clinical clerk under the late Dr. Cholmeley, at Guy's Hospital. The history was as follows:—Mrs. S., æt. 23, married four years; has had no children; of sallow complexion; suffered before marriage much pain at back part of the head and lower part of abdomen, with great debility. After marriage was much worse, and there was a tumor at the upper part of vagina. Consulted a physician without benefit. The catamenia irregular, and of a green colour, and caused great suffering; micturition difficult and painful; the abdomen tender on pressure; skin cool; tongue coated with a white fur; bowels generally confined. Dr. Ashwell was requested to make an examination; and he reported that the cervix uteri was indurated and inflamed, the slightest touch giving great pain. On her entry a dose of calomel and castor oil were given, to clear out the bowels; after which, Dr. C. ordered the following:—Pil. Hyd. gr. iv.; Pulv. Ipecac. gr. i.; Ext. Hyoscy. gr. iv. om. noct. M.; et Ammon. Sub. gr. v.; Mist. Camph. ℥x. bis die. M.

This medicine acted like a charm, and in three weeks she left the hospital quite well.

The next case is a Mrs. F., who two years since consulted me for what she feared was an incurable disease of the womb, as she had been under several medical men, who had done her no good. Her symptoms were very similar to the first, viz. a bearing-down sensation in the vagina, tenderness of abdomen, the unhealthy look of countenance, and a coated tongue. In this case there was pain in the left side, about the situation of the ovarium, and her illness had come on since her last confinement, when she suffered much from the placenta adhering, and which she said was *torn away*. I gave her the same medicine as was given in the former case, and with the happiest effects. She was cured in one month, and has been well ever since.

The third case is a Mrs. G., æt. 23, whom I attended with her first child two months since. Her labour was natural, but the child lived only twelve hours. I was requested to see her three weeks afterwards, and found her labouring under great pain and tenderness in the hypogastric region, and such a bearing-down feeling in the vagina, that she could scarcely sit. Her pulse quick and irritable, her eye sunken, and her countenance totally altered since I last saw her. As this case was of a more acute character, she was confined to her bed. I ordered six leeches to the pubes, and hot fomentations, in addition to the blue pill and extract of henbane. In one fortnight she was quite well.

This treatment, sir, so efficacious and so easy of practice, is highly deserving of a trial, as such cases but too often resist the ordinary means made use of, and it is to be feared have baffled many men, and reflected not a little discredit upon them in the end, especially after a great deal of local treatment, such as warm injections, ointments, cupping on the loins, and sometimes mechanical supports,—a practice by no means uncommon at the present day.

There is another disease over which the same remedies exert a wonderful influence, and that is hysteria. I have a patient now, who has been completely out of health for months, and has suffered dreadfully from hysterical fits, and who appeared to all her friends to be sinking. I at the first gave her the ordinary remedies—steel, bark, ammonia, and henbane—with but little effect. At last I was induced to give her blue pill, and extract of henbane; and she has not had a fit since the second dose, and is now almost well. I have been surprised that this remedy is so well borne by such delicate females, for weeks together (for they are generally delicate women), who, if they were to take it but for a few days when in health, would probably be completely salivated.

Hoping I have not trespassed too long upon you, I am, sir,

Your obedient servant,

EDWIN ELLIS.

Lower Tulse Hill, Brixton, Nov. 1, 1837.

SALTS OF LEAD IN CHOLERA.

By R. VENABLES, M. D.

IN one of your former numbers I observed some remarks of Dr. Graves, relative to the use of acetate of lead in cholera, in which disease it was found by him eminently successful. I have, however, to observe, that I gave the acetate of lead a very extensive trial in the cholera hospital of Bethnal Green, and found it equally inert with most other remedies. I would also observe, that the acetate is not the best formula; for the evacuations from the stomach and bowels are usually *alkaline*, and consequently the oxide will be precipitated. Free carbonic acid will also precipitate carbonate of lead from the acetate, which may, however, be obviated by the addition of a sufficient quantity of free acetate acid.

The late Sir D. Barry requested me, as physician to the Bethnal Green district, and the cholera hospital there established, to try the salt of lead. His observations were, "that he considered the disease a *serous hæmorrhagy* (flux?) from the bowels, and that acetate of lead, therefore, seemed to be the most appropriate astringent." But although administered in large doses combined with opium, it proved inert, and frequently seemed to aggravate the cramps. It is true that the diarrhœa was occasionally suppressed during its use; but I much question if this were not as much owing to kino or catechu, which upon such occasions were administered with it. Finding the different acetates so inert, I still determined to give lead an additional chance, and therefore exhibited the *nitrate* of lead, as a less *decomposable* salt; but I still found this preparation, if not inert, at least of but equivocal powers; administered, too, under every variety of form and mode. It was most successful when aided by kino or catechu.

Such is the result of my experience. But although I feel bound to make this statement, yet I am willing to believe that there may be something of change perhaps since, in the nature of the disease, and that possibly cases now may prove to be more under the influence of the metallic preparations, of the varieties of which, the nitrate, for obvious reasons, must be the preferable; and therefore I agree with you, sir, that should occasion unfortunately occur, practitioners should give due attention to Dr. Graves's suggestions.

But I must say that, upon reviewing the accounts, I do not find a less mortality than has been published in the tables appended to my pamphlet on Cholera; and in which the practice adopted will be found detailed at sufficient length.—*Lond. Med. Gaz.*

PUNCTURATION IN ASCITES.

By THOMAS KING, Esq.

THE patient treated for ascites by puncturation, of whom there appeared some account in the number of your Journal of the 7th ultimo, has continued to improve in health, and is now nearly well. That account extends to the 25th of September last, at which period I had made thirty-eight punctures, and obtained a reduction of four inches in the circumference of the abdomen, with alleviation of the urgent symptoms, and marked amendment of the general health of the patient. Thirty-three punctures have been made since that time: in September, two on the 26th, two on the 29th, and five on the 30th; in October, two on the 2d, two on the 4th, two on the 5th, one on the 10th, one on the 11th, one on the 13th, one on the 16th, one on the 18th, two on the 20th, two on the 22d, one on the 24th, two on the 26th, and three on the 30th; in November, one on the 3d, one on the 6th, one on the 11th, and one this day. Their mode of action appears to be this:—the fluid, with the exception of a small quantity which escapes through the opening in the skin, oozes for three or four hours from the cavity of the peritoneum into the subcutaneous cellular tissue, which it loads and œdematizes. From hence it is gradually absorbed, and chiefly during the next 5 or 6 hours; after which the patient voids a good deal of urine, and often perspires pretty freely. This process appears to be continued or repeated more or less completely, until the peritoneal orifices of the punctures close. Thus has the patient been relieved of the greater part of the fluid which the peritoneum contained. He is now almost restored to health. The circumference of his abdomen is now only three feet four inches, being one foot four inches less than when the operation was first performed: the pulse is at seventy-two, his breathing free; the muscles have regained firmness and strength, and he is beginning to resume his occupations as a surveyor. His tongue is still rather red at its margin, and smooth on the surface, but the appetite is good, and the stools are natural. The urine appears to be of good quality; it is frequently abundant, and then rather pale and aqueous.

The punctures were performed nearly on a level with the umbilicus, with the exception of eight or ten made three or four inches above it: about one-third of them were made in the linea alba, and the others on either side, and within a distance of this line varying from four to eight inches. With regard to their number and the days on which they were practised, I was guided somewhat by the effect they produced on the disease and on the patient. As they sometimes left a little soreness, and I found latterly a small number answer as well as more, I made the fewest requisite. The soreness, and occasionally the indisposition of the patient, sometimes induced me to make them less frequently than every other day, which, however, upon the whole, seemed to me to leave the fittest intervening time from one operation to another.

During this treatment the diuretics and blue pill, previously administered by Mr. L'Estrange and myself, have been discontinued. We have given only potas. nitrat. gr. xii. thrice a day, with whey and parsley tea.—*Ibid.*

OBSERVATIONS ON THE CANCRUM ORIS OF CHILDREN.

To this very formidable disease of infancy various appellations have been given; such as *sloughing phagædena of the mouth*, *gangræna* oris, *cancer aquaticus* or *water-canker*, *gangrenous stomatitis*, &c., &c.

It occurs most frequently about the period of dentition. Sometimes, however, we meet with cases in children of from two to five or six years of age; and examples of a similar affection are occasionally met with even in adults.

The disease commences with a purple spongy appearance of the gum, either of the upper or of the lower jaw; to this state speedily follows ulceration, which eats deeper and deeper, until the alveolar processes are quite exposed. The ulcerated surface is much disposed to bleed, so that its character is often with difficulty ascertained.

In severe cases, the ulceration rapidly passes into a state of gangrene and sloughing; and these morbid changes extend from the gums to the lips and inside of the cheeks. The diseased surface becomes quite black, the teeth drop out, the jaw-bone becomes carious, and even the tongue may become partially destroyed.

In some cases, the disease commences in the lips or cheek, and extends thence to the gums.

The accompanying constitutional symptoms are usually an irritative feverishness, and a greater or less degree of diarrhœa, which quickly reduces the young patient's strength, and speedily carries him off.

Cancrum oris generally occurs in weak, unhealthy, and ill-fed infants. It is often a sequela of remittent fever, scarlatina, small-pox, &c. The disease is always dangerous, and very frequently fatal among the lower orders. In better life its progress may be often arrested.

As an example of the disease in its worst state we quote the following case from Dr. Hamilton's observations on the remittent fever and water-canker, as reported in the Cyclopædia of Medicine. The child was five years of age, and had recently recovered from mild small-pox. The ulceration was reported to have existed only a week, although already it had made great havoc. It had extended from the gums to the palate, which, as well as the plates of the maxillary bone, was destroyed, so that there was a large perforation into the nose, the cavity of which was involved in the disease, the septum and spring-bones being carious. The fetid, acrimonious discharge from the mouth and nose produced ulceration of those portions of the skin with which it came in contact. In less than two days after, the cartilage of the nose was destroyed, and the disease had spread to the upper lip; it then continued progressively to involve hard and soft parts, until the nose, cheeks, eyes, and lips were successively destroyed. It had even extended to the brain, through the cribriform plate of the ethmoid bone and orbits, before the unhappy child fell a victim to the disease.

Some authors have erroneously compared cancrum oris to the scorbutic gangrene of the lips and gums, seen in genuine scurvy. But the analogy is not correct.

Young children very rarely are affected with genuine scurvy; and moreover, in cases of cancrum, we never observe the usually external symptoms of the former disease. In cancrum oris, the gangrenous ulceration is usually limited to one side of the face, or at least it affects one much more than the other side. In scurvy, on the other hand, the local disease affects both the upper and under jaw, and generally also both sides; the gums become tumid, and, as the disease proceeds, livid and disposed to bleed; a fungus shoots out covering the teeth, which do not fall out as in genuine cancrum oris, unless the sockets become decayed. Besides other local differences, the constitutional symptoms are very different in the two diseases. Cancrum oris is always accompanied with high irritation of the system, which is never, unless merely accidentally, present in genuine scurvy.

We have already stated that cancrum oris is infinitely more frequent in weak, ill-fed, and unhealthy children of the poorer classes, than in the higher walks of life. Dr. Hamilton was of opinion that certain localities, &c., predispose to the occurrence of the disease. It is more frequent in low, damp, fenny districts, than in higher and purer positions. It has been observed to be most malignant and fatal in warm weather after a rainy season, or when epidemic diseases of a putrid character, such as small-pox, measles, or angina maligna, have prevailed. It is especially fatal, when it occurs in children, who are recovering from any of these diseases.

From Dr. Hamilton's observations, it does not appear to be at all contagious.

With respect to the treatment, its success depends greatly on the progress which the disease has already made. When the ulcerative process is confined to the gums, a cure may be generally effected. Aperients and other constitutional remedies are almost always requisite, to subdue the constitutional feverishness and disturbance. When these are corrected, the local disease is often arrested, and the ulceration is found to heal spontaneously. Should it however become indolent, its surface may be touched with the oxymel ærugines, tinctura ferri muriatis, or with a mixture containing one drachm of muriatic acid and an ounce of the honey of roses.

When the disease assumes the character of sloughing phagedæna, our object must be to arrest the extension of the local mischief, and to support the powers of life at the same time. For the latter purpose, after we have evacuated the bowels gently with warm aromatic purges, we may give ammonia with vegetable bitters, syrup of sarsaparilla, and small doses of wine. Mild nutritious food, such as beef-tea, or any other animal broth, should be administered frequently.

The muriatic acid is the best local application. Combined with the honey of roses, it should be freely applied to all the diseased surface, and the mouth may be frequently washed out with a strong acidulated decoction of bark, to which some laudanum has been added. If the child cannot use a gargle, the mouth should be washed out with a syringe. The black wash is a good application when the ulceration begins to heal, or in the early stage of the disease.

In the worst cases of the disease, when it has extended to the bones, we cannot expect to be of much use. The pure muriatic, or nitric acid applied to the sore, and large doses of the carbonate of ammonia taken internally, are the best remedies we can use.

As illustrative of the disease, we are tempted to extract the following observations of M. Baudelocque, one of the physicians of the Hôpital des Enfans at Paris, as reported in Dr. Rioffrey's Journal.

Gangrenous stomatitis, or the gangrenous inflammation of the mouth in young children is very common in large towns, especially among the poorer classes. It is, therefore, by no means surprising there should be so many cases of it in the hospital for sick children. During the last six weeks, four affections of this kind have been treated by Dr. Baudelocque, and notwithstanding the danger of this disease, proved fatal only to one of the four children. We shall give a rapid sketch of the four cases, and show the plan of treatment adopted by Dr. B.

On the 13th of September, a little girl, six years and a half old, was admitted into the hospital, with a cankerous affection of the mouth. This child had been ill for a week, and still had remains of the measle rash; the face was much swelled, the left side œdematized, the eyelids nearly closed: in the middle of the cheek there was a sore rather larger than a shilling; inside the mouth was an ulceration, and the whole depth of the cheek was invaded; lower down there was another sore; a dark discharge, of very fetid odour, flowed from the mouth; the gums were swelled and bleeding. Two large sinapisms had been applied to the legs during the measles, and there remained two large gangrenous sores invading the chief part of the teguments of the legs. Auscultation showed that the lungs were seriously affected. The pulse was slow, scarcely perceptible, and a continual diarrhœa contributed to weaken the patient.

Although there could be but little hope of recovery, Dr. Baudelocque had the internal sore cauterized with hydrochloric or muriatic acid, and externally with a hot iron; the eschars were then to be sprinkled with the powder of chloride of lime. He also prescribed a mixture of a drachm of acetate of ammonia, and an ounce of syrup of quinine, two moderate injections of bark, and the sores of the legs to be powdered with the chloride of lime.

The cauterization was renewed several times. The following day the pulse was better, there was no swelling round the cauterized parts, and the face was less œdematized.

On the 26th, the cauterization was again made on the internal sore; four ounces of Malaga wine, to be taken by spoonfuls, were prescribed; the syrup of quinine, the acetate of ammonia, and other means indicated, were continued, but the young patient sunk, became delirious, and died on the 28th.

A post mortem examination was made the ensuing day. The periosteum of the whole side of the lower jaw to the articulation was detached. The lungs were hepatized in various degrees, and sprinkled with miliary tubercles; the digestive tube was empty.

There was not the slightest chance of saving this patient; the state of the lungs rendered all care useless.

The cauterization, however, seemed to have a good effect on the stomatitis, which made no farther progress, the fetid odour no longer existed, a degree of reaction had taken place, but the double pneumonia and excessive suppuration arising from the gangrenous sores on the legs, necessarily led to a fatal termination. In the other three cases this cauterization has been followed by a happier result, though one child was very young, and her state most serious.

A little girl, of five years old, had several gangrenous spots on the cheeks and upper and lower gums. This disease had also made its appearance during the measles. There was cough, fever, diarrhœa, and the running from the mouth was so fetid, that it was difficult to examine it.

All the gangrenous parts were touched with hydrochloric acid, and then powdered with chloride of lime. Syrup of quinine, tonic and antiseptic injections were prescribed. The fetid odour soon disappeared, and the gangrenous spots did not increase. The upper and lower teeth fell out with the sloughs, and a large splinter of the maxillary bone, so that after the child's recovery there was a double solution of continuity, which seemed to result from two semi-elliptic sections made in the upper and lower jaw.

This cure is undoubtedly very remarkable, and quite unexpected, for children of the same age taken into the hospital, and having any severe illness seldom recover.

The other two cases offer but little interest, after those just related. A little girl, admitted into the hospital, had been ill three months; there was a considerable swelling of the under maxillary ganglia on the left side. When the mouth was opened, several ulcerations of the cheek, the palate, and the tongue were visible; this affection appeared local. The ulcers were touched with hydrochloric acid, then covered with powder of chloride of lime. A gargle of honey and syrup of bark was prescribed.

The progress of this stomatitis was arrested after the second cauterization, and the young patient left the hospital cured, at the end of a week.

The fourth case is that of a little girl, who had two large ulcers in the cheek and on the tongue; the same treatment was followed as for the other child, and she seems to be in a fair way of recovery.

In the two latter patients, the stomatitis existed independently of any other disease, which does not often occur. This affection is almost always concomitant with an eruption, and especially with the measles, and there are generally serious lesions in the lungs, so that the stomatitis may be considered a dangerous complication, which hurries on the fatal termination.

The digestive tube does not in general show very distinct marks of inflammation, and the purging is apparently owing to deglutition of the matter secreted by the gangrenous mucous membrane of the cheek. The preparation of bark, especially in union with opium, appears to be useful in moderating this diarrhœa. —*Medico-Chirurg. Rev.*

PNEUMONIA TYPHOIDES.

Though we do not, by any means, put the same faith in the success of the mercurial practice as our correspondent, we have no hesitation in inserting his Paper, recommended as it is by its brevity, and the absence of the customary needless speculations with which almost every essay on disease is both begun and ended.

To the Editor of the Select Medical Library and Eclectic Journal of Medicine.

SIR,—During the Spring of 1837, Pneumonia Typhoides prevailed epidemically in this place (Sag Harbor), and as is common on the invasion of epidemics, different physicians taking different views of its nature, pursue directly contrary plans of treatment. Those who regarded it as inflammatory, used the antiphlogistic, and those who considered it as essentially typhoid, stimulated. The symptoms, as I observed them, were as follows:—Commencing with the ordinary feelings of common colds, they gradually and rapidly increased in severity, and on the first visit there appeared fulness and lividity of countenance, assuming a darker colour around the mouth; and beneath the lower eyelid injection of the conjunctiva. Lassitude and soreness of the flesh, aversion to motion of any kind so great, that much importunity was necessary even to elicit any information from the sick in respect to their own feelings. Pain often, but not always, in various parts of the chest, but so slight as rarely to be complained of, unless attention was specially directed thereto. Headache uniformly present, amounting in the course of the disease to delirium and stupor; the patient lying on the back, and sinking in the bed. Tongue at first covered with a white fur, gradually becoming of a dirty green, and finally of a black colour, as in typhus; the gums and teeth incrusted with the same. Breathing somewhat hurried, accompanied with sighing, and a crepitating râle which could be heard in some cases at a distance of six feet, and always distinctly audible without the stethoscope, when the ear was applied to the chest. Deep inspiration caused slight cough, but was unattended with pain or other inconvenience. But little cough, and that giving a diffused stuffing and moist sound; expectoration first of a greenish hue, filled with globules of air, adhering to the side of the vessel like pieces of half dissolved glue, becoming in a few days of a lighter colour; frothy, sometimes streaked with blood, and lastly, when recovery took place, consisting entirely of yellow mucus. Pulse accelerated, but low, and often irregular. Heat for the most part above the natural standard; but while the body was so, the extremities would be cold. Skin dry. Nausea, but rarely vomiting. Bowels with one exception constipated. Attacks confined to adults, between the years of twenty and forty-five, but it was not noticed that the intemperate were more liable to it than others; when however they were its victims, the disease was aggravated, and the result more unfortunate.

Treatment.—When called within the first twenty-four hours, I evacuated the stomach and bowels with a combination of ipecac., grs. xv.; sub. mur. hyd., grs. xx. If not so early, the ipecac. was omitted, and a few grs. of the sub. muriat. added. Large blisters, eight or ten inches square, were applied to the chest. After gentle evacuation of the primæ viæ, pills of opii., grs. ss.; sub. mur., grs. ij., were ordered every six hours, varying the proportions so as to prevent purging, and obtain the constitutional effect. Ipecac. and camphor were often added to the pill, according as stimulation was considered more or less requisite, and to promote diaphoresis. Senega, squill and other stimulating expectorants were freely given towards the close of the disease; and the emollients, as flax-seed, slippery-elm, &c. at the commencement. Brandy, wine, capsicum, and the like, after the third or fourth, supported the sinking powers of life, and were often necessary from the beginning. Mercury, however, was the sheet anchor, I might almost call it a specific. When pushed to ptyalism, if the blisters had produced free vesication the patient was safe. By pursuing this plan of treatment I lost but one patient out of fifteen, and he was of intemperate habits, delirious, with cold extremities, passing his urine and feces involuntarily; low, rapid, irregular pulse, &c. when I first saw him. Brandy, ether, and opium were profusely used, and five blisters in succession on the same spot did not cause vesication: he sunk on the third day without having had the least alleviation of a single symptom. Another physician, who practised in much the same manner, lost but one in twenty-three. Bleeding was only used once by me, (never by him,) in a case that partook more of an inflammatory character. With great misgiving at the time from the known nature of the epidemic, and although ultimate recovery followed, I am sensible it was injurious and protracted his illness. Another physician bled in five cases, and lost four. Antimony was commonly inadmissible, except in the first stage, and but little used. In sporadic cases occurring since that time, however, it has answered a much better purpose, as they are more inflammatory. Turpeth mineral did not equal the high expectation formed of it from the recommendation of Thatcher.

Respectfully, Yours,

Sag Harbor, February 7th, 1838. J. H. Dayton, M. D.

BIBLIOGRAPHY.

Boylston Prize Dissertations for the year 1836 *and* 1837; (viz., *On Intermittent Fever in New England, on Neuralgia, and on Direct Exploration.*) By Oliver Wendell Holmes, M.D.; Fellow of the Massachusetts Medical Society, and Member of the Société Médicale d'Observation of Paris. Boston: Charles P. Little and James Brown. 1838. pp. 378. 8vo.

These dissertations are favourable evidence of the industry, research, and candour of Dr. Holmes. They have higher claims on our notice than those of novelty. They are useful and practical in their tendency and application.

In the first dissertation, or "Facts and Traditions respecting the Existence of Indigenous Intermittent Fever in New England," the author introduces a number of curious historical fragments illustrative of the localities of this disease. Of the early opinions entertained of the salubrity on this part of the continent, an instance is given in the language of the Reverend Mr. Higgeson, in a paper entitled "New England's Plantation," in which, after some sentences of eulogy, he farther adds:—"And therefore, I think it is a wise course for all cold complections to come to take physick in New England; for a sup of New England's aire is better than a draught of Old England's ale." A more orthodox opinion than is advanced by some divines of the present day.

The spirit of exaggeration, in reference to the climate of a newly-discovered region, is manifested in the observations of Wood, the author of "New England's Prospect." He left the country in 1633. "To my knowledge," he says, "I never knew any that had the [small] pox, measles, green sickness, headache, stone, or consumptions, &c. Many that come infirm out of *England* retain their old grievances still; and some that were long troubled with lingering diseases, as coughs of the lungs, consumptions, &c., have been restored by that medicinal climate to their former strength and health." The mortuary returns in Boston and other parts of New England are now in sad contradiction with this flattering picture. Consumption is, we believe, the cause of one out of every six deaths in that region.

Dr. Holmes renders it more than probable, on the strength of the various authorities which he adduces, that intermittent fever was known to exist at an early period of the settlement of New England; but its prevalence was very limited, "and the only place which we can clearly point to, as giving origin to the disease, is New Haven."

The author afterwards gives the "evidence derived from more recent sources;" the "facts relating to places situated upon the larger rivers and their tributaries;" "facts relating to regions bordering upon lakes and ponds."

The second essay is "On the Nature and Treatment of Neuralgia." It consists of an inquiry into the definition and antiquity of the disease; the conditions of the suffering part and of the system in general, and the treatment. Under the first of these heads we read the following as the definition of neuralgia proposed by the author. "*Pain in the continuity of a nervous trunk or filament, or in its expanded extremities, when unattended by, or in obvious disproportion to, any organic changes in the part to which the pain is referred.*"

Respecting the second head, or the antiquity of the disease, Dr. Holmes, after adducing various authorities, says: "For us, then, neuralgia is not a disease of modern origin, and we are spared the discussions sometimes indulged in upon the ruinous effects of advancing civilization and refinement, the enervating influences of tea and coffee, and similar matters of speculation."

A critical examination is then entered into as to the precise seat of neuralgia, and the probable nature of the organic change. First, we are told of the authors who suppose that there is "some alteration of the nerve affected:" next, a more generally received opinion, "that neuralgia is due to inflammation of the nerve, or of the neurilema." This last hypothesis, attributed to Dr. Parry of Bath, whose Elements of Pathology and Therapeutics appeared in 1815, "was distinctly brought forward in the treatise of Hamel, published in 1803." It is fully investigated by Dr. Holmes, who shows himself to be a calm and careful critical commentator. Connected, and indeed necessarily involved with this part of the subject, is an inquiry into the phenomena of *neuritis*, or proper inflammation of a nerve, which, in the volume before us, is well conducted. The author sums up with the following conclusions:—

> "First. As M. Martinet has declared, and as his cases demonstrate, inflammation of the nerves is one of the causes of neuralgia.
>
> "Secondly. Pathological anatomy, the history of the symptoms, and the effects of treatment, concur in showing that the greater number of cases of the affection we are considering, are owing to some condition different from inflammation."

Another theory, brought forward in the work of Roche and Sanson, that neuralgia, in common with the *neuroses*, depends on "the accumulation of the *nervous* fluid in a tissue," is mentioned, and speedily dismissed.

Among the local causes of neuralgia, are the presence of a foreign body or tumour pressing on the nerve leading to the part pained, and the tension which some of the fibres of a nerve undergo when it has been but partially divided.

The opinion that the origin of this affection is in the spinal marrow, "was long ago brought forward by Lentin," and has of late been reproduced and enlarged on by Tate, Teale, and others. Dr. Holmes's review of the arguments and facts in favour of this hypothesis, and his analysis of their real value, are not favourable to our credence in it,—any more than in the doctrine which supposes the cause, or one of the causes of neuralgia, to depend on a morbid condition of the brain.

> "Mr. Swan's supposition, that neuralgia is symptomatic of a general irritability of the brain and nervous system, is open to several objections. It is obvious, in the first place, that this hypothesis does not at all explain why a single nerve should be the constant seat of suffering."

In reply to the "not very new idea," that neuralgia arises from disorder of the digestive organs, we have, among others brought forward by the author, the declaration of Dr. Elliotson, who tells us that, "allowing some of the blame to be deserved, that is laid upon the digestive organs, as causing all kinds of diseases of all parts—a vulgar assumption, easily made, and saving a world of investigation and accurate reasoning,—we have never seen but one case of neuralgia referrible to such an *origin.*"

"The best, but by no means the least, important of the conditions giving origin to neuralgia, is the state of the system, or certain parts of it, produced by malaria."

The treatment of neuralgia, according to the different pathological indications, is given with needful detail by Dr. Holmes. We must refer the reader to the volume itself, for satisfaction on this head, which will well repay him for the trouble of perusal. A bare enumeration of the therapeutic means employed, under the head of 'external applications,' and of 'internal remedies,' must suffice in this place. Of the first, the author mentions leeches, cupping, pressure and friction, cold applications, warm applications, rubefacients, blisters, endermic treatment, setons and issues, moxa, acupuncture, electricity, electro-puncture, galvanism, magnetism, sea bathing and medicinal baths. Under the second head are mentioned; narcotics, sub-carbonate of iron and turpentine, various topics and antispasmodics.

We have also an additional sub-chapter on the "Surgical Operations proposed for the Relief of Neuralgia," viz. section of the nerves, excision of a part of the nerve, caustic upon the affected nerve.

This essay is terminated by various formulæ, the same as those given by M. Jolly, at the end of his article on Neuralgia, in the *Dictionaire de Medecine et de Chirurgie Pratiques.*

The third and last essay of Dr Holmes, "On the Utility and Importance of Direct Exploration in Medical Practice," will be considered the most valuable of the three. Whatever prejudices may have, for a time, prevented this branch of diagnosis, and of prognosis, from being properly attended to, its value is now so generally conceded, that ignorance of the means to render it available must greatly detract from the usefulness and skill of a physician.

In conclusion, we can have no hesitation in saying, that the volume of Dr. Holmes ought to have a place in the library of every physician, who has not arbitrarily imposed on himself limits in this respect which he will not pass. We know, that there is more probability of this self-denial of literary aliment being evinced by the man who has but a single shelf of books, and they not the most classical or select, than by one whose stores are already considerable.

A Discourse Commemorative of Philip Syng Physick, M. D., Prepared by Appointment of the Faculty and Class of the Louisville Medical Institute, and delivered January 12th, 1838. By CHARLES CALDWELL, M. D. Prentice and Weissenger. 1838, pp. 41.

A contemporary and actor on the same stage with the subject of his Discourse, Dr. Caldwell was so far qualified to tell of the career, and to note the chief incidents of the life of Dr. Physick. These he has done with vigour and spirit, not entirely divested of exaggeration; as where he supposes the two favourite pupils of John Hunter, Physick and Jenner, to be representatives of respectively the United States and England, struggling for the ascendency of talents and distinction, and waging "afresh the conflicts between the mother country and her colonies, which had recently terminated in the triumph of the latter." Whereas in fact, the early tastes and predilections of these two young men, were as different as was their subsequent professional course. Jenner was fond of natural history and comparative anatomy and physiology, and took small interest in surgery. His paper on the habits of the Cuckoo is well known. Physick was devoted to surgery, and cared for and studied little else. To any man, who knew the unimaginative mind of the American surgeon, the supposition is passably amusing, that he, then a pains-taking industrious student of anatomy and surgery, should think for a moment, and, still more, continue to act under the belief of his being the champion of the intellectual character of his country. We think it just as likely that he used to fill up the intervals of his hospital duties and preparation for the anatomical theatre, with reading the Iliad, and sketching a tragedy in five acts, to be called the Death of the Cuckoo, or Columbia Triumphant.

An additional example of this violent straining for effect, to enhance the reputation of the subject of his discourse, is furnished in the statement gravely made, that the post mortem examinations of persons dead of the yellow fever of 1793, by Dr. Physick, were the beginning of and inducement to the study of morbid anatomy in modern times. "From Philadelphia, where it began, the practice of *post mortem* inspection passed to the West Indies, and from thence to Europe, especially to France." Napoleon, we are told, in addition, gave it vogue in his armies, and from there "the practice extended to all other armies, hospitals and places, and is now universal. And I repeat," continues Dr. Caldwell, "that so little had been done in that important mode of research, and so little consideration had been attached to it, that with Physick, in 1793, it may be said to have practically and efficiently commenced." We confess ourselves unable to follow this circuitous and yet rapid course of ratiocination. Were not ideality and marvellousness much more active than causality, when the biographer prepared this part of his discourse?

Let us hasten, however, to assure our readers, that, in mentioning the blemishes of this performance first, it was not because of their overshadowing or being more numerous than the commendable traits which abound in it. The errors are on the side of good feeling; but they would seem to imply, what certainly is not the case, a necessity for introducing supposititious merit in the life of a man, whose real worth and deeds are so deservedly prominent and understood. Dr. Physick need not be examined through a magnifying glass, in order to enable the inquirer to see his peculiar abilities.

Dr. Caldwell introduces some incidents calculated to throw light upon the character of the deceased Professor, and upon the whole has worked up a picture which, if not a portrait in all its points and proportions, may well be examined by the youthful aspirant after professional greatness. The impressions which it produces are profitable and worthy of remembrance, and will serve to suggest an enlarged view of duties and responsibilities.

Annual Report of the Board of Trustees of the Massachusetts General Hospital, for the year 1837.

This report is a favourable exhibition of the state and prospects of the Hospital proper, and of the M'Lean Asylum, connected with it, for the reception and treatment of the Insane. We must content ourselves with a few brief extracts.

"It appears from the report of the Superintendent, that the whole number of patients recovered at the Hospital in Allan Street, during the year 1837, has been 440, of whom 206 have been cured, and 152 relieved." Reference is made to "the occasional appearance of erysipelas, and the apprehension of an increase of this distressing malady among the patients of the hospital." And steps are mentioned as having been taken to arrest the progress, though without entire success.

"The number of boarders received at the M'Lean Asylum for the Insane, during the year, has been 120, of whom 72 have been discharged, cured. The last Annual Report mentioned the fact, that Dr. Luther V. Bell had been elected to the office of Physician and Superintendent, after the lamented death of Dr. Lee. Every anticipation in which the trustees then indulged, in regard to the gentleman thus selected, has been in the fullest manner realized. He has most successfully carried out the same system of moral and medical treatment which had been previously adopted. He has, like his eminent predecessors, identified himself with the interests and usefulness of the institution, and his administration, like theirs, has been marked by devotedness to the great objects of what it was founded."

We may, perhaps, find room hereafter for parts of Dr. Bell's report of the numbers, proportion in regard to sex, and the cures of the insane; and his reflexions on the probabilities of success, according to the period of duration of the disease, and the moral treatment demanded under these circumstances.

Statement of Deaths with the Diseases and Ages in the City and Liberties of Philadelphia, during the year 1837.

The following are the Births and Deaths of each month:—

MONTHS.	MALES.	FEMALES.	TOTAL.	MALES.	FEMALES.	TOTAL.
January - - -	401	361	762	267	225	492
February - -	330	329	659	209	187	396
March - - -	377	343	720	218	209	427
April - - - -	327	326	653	227	198	425
May - - - -	328	312	640	256	205	461
June - - - -	318	297	615	183	143	326
July - - - -	368	322	690	276	225	501
August - - -	346	340	686	369	318	687
September - .	352	351	703	209	193	402
October - - -	348	313	661	167	168	335
November - -	338	323	661	209	193	402
December - -	402	336	738	165	183	348
	4325	3953	8188	2755	2447	5202

Of the above, deducting the Still-born, which were 321, there were *Males* of 20 years and upwards, 1170—under 20 years, 1397. *Females* of 20 years and upwards, 1025—under 20 years, 1289.

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EDITORIAL IMAGINATION.

When, two months ago, a paper by Dr. SHARPLESS, on the "Use and Abuse of the Pessary," appeared in this Journal, we did not suppose that we should be under the necessity of making some remarks on the abuse of editorial imagination, which has been oddly developed in some strictures in the American Journal of the Medical Sciences; first, on the author of the paper, and, second, on us, for giving it insertion "without comment." Our readers will be surprised to learn, that a notable discovery has been made, of the practice recommended and tried by Dr. Sharpless in certain varieties of diseases of the uterine system, being *contra bonos mores*, and disposing the patient to acquire vicious habits.

For ourselves, we can submit, without the aid of philosophy, to censure in the American Journal; and would only smile at these bubbles emitted from its stagnant pool of common place, if important interests were not involved in this matter. We can overlook the want of editorial courtesy, evinced in the needless personality of introducing the name of the editor in addition to that of the Journal, in which the obnoxious article appeared;—and might attribute it to inexperience, were it not for the characteristically self-complacent allusion to the length of "editorial career." But we cannot, in common justice, regard with equal indulgence the manifest breach of editorial and critical propriety, in the clearly implied impeachment of the experience of Dr. Sharpless in the disease on which he writes, under the plea "that he is an unmarried man, and unconnected with any public institution for those complaints."

Allegations like these are surely in bad taste, to say nothing of their faulty logic. What, we may ask, would be the effect, if a writer, in his comments on the practice of a professional brother, should, after adverting to the fact of the latter's having committed matrimony, argue against his impartiality and independence of clinical research, on the ground of the partnership thus formed? Would not this be very properly considered an impertinent intrusion on the privacy of the domestic circle? Nor is it less clear, that the circumstance of a man's being unmarried ought not deprive him of his social and domestic privileges, nor subject him to disparaging remarks in his public and professional labours and undertakings. Ethically considered, the timidity of the other sex in making their complaints known to a medical man, and especially to one who is yet a bachelor, cannot be blamed. It is a pardonable weakness, though often productive of protracted misery, and even death to the patient who is thus backward, at first to communicate her distress, and afterwards to allow of the necessary means of relief being had recourse to. Every physician knows the absurdity, in fact, of the idea, that greater skill and delicacy of manner and reserve are displayed by a married than by a single man, in his professional intercourse with the sex. Such an opinion held or insinuated from any medical quarter can, therefore, only subject the utterer to the imputation of unfairness and insincerity.

That mere bachelorship does not disqualify a physician from a large practice, and distinction and confidence in obstetrics and the diseases of females, we have, among others, the instance of the celebrated William Hunter,—whose reputation must have come within the knowledge of the editor of the American Journal. Nor is the being "unconnected with any public institution" evidence of want of opportunities for acquiring even extensive experience of the nature and treatment of disease. A very slight retrospection in medical literature will suffice to show, that we are indebted to physicians thus circumstanced for some of the best medical works, including those on the diseases peculiar to females. If it were necessary, we could adduce the case of a gentleman, whose opinions have ever been regarded in the American Journal of the Medical Sciences as of the highest authority in his department.

Having pointed out the defects, both in ethics and logic, of the introductory matter, we now come to the charge itself against both the contributor to our pages, Dr. Sharpless, and, by implication, ourselves. We might reply, in general terms, to the criticism, in the words of the Lady Olivia to her steward,—"O you are sick of self love, Malvolio, and taste with a distempered appetite. To be generous, guiltless, and of free disposition, is to take those things for bird-bolts, that you deem cannon-bullets." But we must be more specific, and say; that, although endowed with a tolerably active imagination, happily it is not in that prurient or morbid state which could make us see in a clear and carefully written description of a practice for the relief of disease, by a professional man, recorded in a professional work, and addressed to professional readers, matter for lubricity of thought and incitement to vice. We have not accustomed ourselves, or rather have never attempted, to pervert from their intended and obvious meaning and use, professional accounts of the various aids and contrivances for the relief of pain and disease in the mucous passages. Whether the instrument be bougie or catheter, pessary or speculum, we can read of its use and abuse without digressing into impure commentary, and have recourse to it in suitable cases, without thinking it necessary to propitiate the countenance, and obtain the consent of the patient by an assurance that our intentions are moral, and that the practice will not tempt him or her, as the case may be, to vicious indulgences. A professional man ought not to foster the thought, nor admit the possibility in the mind of his patient, of the extraneous gloss of moral impurity and turpitude on the means which, after due reflection, he believes to be best adapted to the cure of disease.

A person intent on reaching impure conclusions, could find cause to stigmatise the use of any one of the instruments above named, with as much asperity and show of reason as are evinced in the strictures of the American Journal on Dr. Sharpless's practice. Cases even, might, probably, be adduced confirmatory of the critic's view; for what act so monstrous, which a diseased imagination, at some time or another, has not suggested.

In another point of view, the manner in which the subject is treated in the American Journal, seems to us to be exceedingly reprehensible, both in its want of ingenuousness and of delicacy. In the first place; that must be considered a novel display of moral tactics for arresting the effects of what is conceived to be an improper narrative and exposition, which consists in republishing and giving diffusion to the obnoxious matter. Still more strange is the plan of giving point to, by setting off, in italics, certain passages of the original essay, which would have been otherwise unnoticed by a great majority of readers: and this is done without even the common, if not invariable, explanatory remark of a reviewer or commentator, when he takes this license with his author. The reader of the American Journal of the Medical Sciences is left to infer, from a perusal of the quotation introduced from Dr. Sharpless's paper, that he, Dr. S., had thus designated in italics particular passages; whereas the whole merit, both of the perception of any indelicacy and of making and trumpeting abroad, as such, the matter quoted, must rest with the reviewer, or the editor of the Journal in question. But, as if the latter were really ambitious of establishing beyond all dispute an undivided claim to the discovery of impurity where none was uttered or implied, and of vicious indulgences where none were held forth, or even thought of, there follows, after the (wrongly) italicised quotation, a reference to a popular work on a solitary vice, which, in this instance, would have the effect, though of course not intended, of suggesting its indulgence to novices and the inexperienced.

With as lively a feeling "of unaffected pain," and as fully prompted by "a strong sense of duty," as, in these particulars, are claimed by the reviewer in the American Journal, a more tolerant censor than he might very naturally be supposed to bring the following charges against him: 1. Interrupting that confidence which should ever exist among professional men, by inducing a fear of their plain professional statements having a distorted ethical construction put upon them. 2. Contributing to the probabilities of these misconstructions gaining the ear of the general community, and thus increasing the existing aversion of the other sex to communicate an account of their pains and diseases, and, still more, to submit to the treatment which may be imperatively required for their removal, and even for saving life itself. 3. Libelling the sex, by an averment, that individuals of it would be inclined to convert the instruments of surgery used for the cure of certain diseases, into the means of vicious gratification.

But we do not suppose the writer in, or the editor of, the American Journal, guilty of fixed intention of the wrongs which might be thus charged upon him. His present is a sudden outbreak, the result, probably, of some strong impulse; perchance the effect of second sight, in this age of animal magnetism. We the more incline to this view of the subject, from the fact, that, in the preceding number of said Journal, details of a new practice in leucorrhœa were published, which, to an imagination at all warped, would have furnished matter for severe criticism, and been stigmatised as revolting to the moral sense. They were allowed, however, conspicuous insertion, 'without comment.' Whether the high sanction of the name under which they were presented, or the mere fact of their appearance in the pages of the American Journal, was sufficient guaranty of their great practical value and illuminated moral application, we do not pretend to say. But this much we know; that, although the practice struck us as somewhat odd, yet seeing no indications, in the shape of italics, of what we ought to think naughty, no warning of commentary to guide the unsuspecting reader to a knowledge of any hidden meaning and sinister results, we inserted an account of it in our pages. Should the Editor revoke his *imprimatur*, our readers may judge in what a sad predicament we shall be placed, for having, however unwittingly, run counter to so consistent and impartial a *censor morum et literarum*.

We subjoin the reply of Dr. Sharpless to the article above referred to in the American Journal of Medical Sciences.

To the Editor of the Select Medical Library, and Eclectic Journal of Medicine.

Sir,—To the unjustifiably severe strictures of the Editor of the American Journal of the Medical Sciences, on my article "On the Use and Abuse of the Pessary," published in the January number of the Eclectic Journal, I shall make a short reply; restricting myself to a few points. I leave to you the consideration of the subject in its ethical bearings, as you are impeached for giving currency to my alleged errors.

To the insinuation, that I had *pretended* to more experience in uterine diseases than could *possibly* have been the case, as I was unmarried, &c., I will reply, that a practice of fourteen years, preceded by a year's residence in the Alms-House of this city, with my attention drawn during the whole time to such maladies, has thrown an unusual proportion of cases into my hands; and, in consequence, certain opinions have been imbibed and practice instituted, that may appear "monstrous" to the Editor. The use of the bougie in neuralgic vagina was founded on analogy, from my having witnessed the benefit of it in other irritable passages. The *value* of this NEW application the learned Editor does not condescend to consider; but, forgetting that a legitimate review of an essay should be confined to the intrinsic merits of its contents, he utterly condemns the innovation, from a possibility of their abuse in an evil-minded female. It is truly a novel reason, why a new poison or surgical instrument should not be introduced into "practice," for fear persons desirous of suicide *might* kill themselves therewith. On this principle, the discoverer of oxalic or prussic acid, or the inventor of the scalpel, should have been executed without "benefit of clergy," as an anticipatory punishment for the self-murders that might be committed by those means.

As regards the confirmation of the Editor's fears, by my "verbal illustrations at the College of Physicians," all that I gave, were some cases showing the great relief obtained by the means proposed; and *not a word* was uttered either by myself, or by others in my hearing, which contained the most *distant allusion* to a possibility of the "abuse" intimated. Moreover, a physician present, of much greater experience than either the Editor or myself, remarked, that he had once recommended bougies for the very disease in question; and a Professor in this city has informed me that he has directed them for Leucorrhœa.

If, therefore, it be conceded that bougies are useful in *some* neuralgic or irritable canals, they *may* certainly be of service in others; and it only remains to be considered *how* they can be employed, in case it is thought proper to extend an acknowledged good practice in the urethra, to the vagina. Let me inquire of the fastidious Editor, which would be the most delicate: to inform the female *how* to employ them, or for the physician to use them himself? The whole weight of the remarks is upon the *possible* misuse of the remedy. I know not on what kind of persons the Editor has made his "limited observations"; but, until the article had been written some time, such a possibility had never presented itself to me; and then, only, at the suggestion of a medical friend—nothing in the experience of years having led *me* to such a fear. I have heard the opinion, directly and indirectly, of a large proportion of my medical brethren of this city of the review and its sentiments, and I have not yet heard of one who justifies the criticism, and but two or three who would have thought of or feared such an abuse of the remedy. The commendatory notice of my paper in two very respectable medical journals of this city, would also indicate that the Editor of the American Journal of the Medical Sciences stood alone even among his own fraternity. I consider the *whole charge* as a gratuitous libel upon the female sex, and utterly incompatible with an exalted opinion of their purity of feeling and propriety of conduct.

I will merely remark, that the Editor rather *disproves* the great extent of his modesty, and of his dread of the pernicious tendency of the monstrous doctrine, by *copying the whole obnoxious passage*, and expressing sentiments and anticipations which I take sincere pleasure in recording, have been conceived by few, and which still fewer would have been so injudicious as to publish.

Yours, &c.

JOHN T. SHARPLESS, M.D.

February 26, 1838.

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MEMOIRS OF THE ROYAL ACADEMY OF MEDICINE.*

We are indebted to the Edinburgh Medical and Surgical Journal for this article;—as also for the review of Quetelet on Man, in our fourth number.—*Ed. Ec. Journ.*

In resuming our account of this work, we have much pleasure in laying before our readers, as the first article in the third volume, a memoir of the *Baron Cuvier* by *M. Pariset*, the Permanent Secretary of the Academy. This great man was born in the year 1769, at Montbéliard, then in possession of the Dukes of Würtemberg, to whom this little principality passed by marriage, in the year 1397, after having been for 500 years in the possession of its own Counts. His father was an officer in a Swiss regiment in the service of France, to which Montbéliard became subject in 1794; and his mother, a woman of great merit, to whom he owed, like many other great men, very important advantages, also belonged to the same state. Cuvier's earliest youth was distinguished by devotion to mental exercises.

On coming from school, he used to sit on a stool by his mother, with a book in his hand, listening to her kind and endearing instructions; and he soon became much attached to works of history, of voyages and travels, and philosophy. But most of all, he was delighted with *Buffon*, whose works he might be almost said to have by heart. When quite a child, he attained great proficiency in drawing; and by the age of 13, he had copied Buffon's thousand and eight coloured plates of birds, by which sort of exercise, his eye acquired a quickness and facility of perception, which were of important service to him during his whole life.

He was intended for the Church, and began his studies in theology at Montbéliard. At the age of 14 it was necessary that he should be entered at Tubingen; but as the admissions were by a concours, for the students were educated at the expense of the State, he presented himself, and failed, owing to the animosity of a professor whom he had offended by his raillery. He was soon, however, invited to Stuttgard, by his sovereign, the reigning Duke, and placed in the Gymnasium, where he continued four years, during which time he studied eagerly mathematics, natural history, law, and above all, technology, which may be defined the knowledge of public business, (*la Science de l'Administration.*)

His views even, at the time of his quitting Stuttgard, were limited to some official situation in his native state, which might consist of fifty villages, and a capital containing 4000 or 5000 inhabitants; but he was at this time invited by *M. Parrot*, a fellow student of his, who was offered an establishment in Russia, to succeed him as tutor in the family of *M. d'Héricy*, a Protestant gentleman of Fiquainville in Normandy, an appointment which he gladly accepted. Thither he therefore went in the year 1788, at the age of 19, and continued till the education of his pupil was finished in the year 1795, when he went to Paris at the earnest solicitation of the *Abbé Tessiér*, who had escaped the persecutions of the metropolis, and took upon himself the functions of a physician at Fécamp.

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* Mémoires de l'Academie Royale de Medecine. Tome iii. 4to. pp. 522. Paris, 1833.

Cuvier was then 26; and he had employed the whole period of his residence in Normandy in cultivating most sedulously an acquaintance with the natural history and comparative anatomy of animals, particularly of insects, fish, and the mollusca. As the institution of popular assemblies was at that time the order of the day, he very judiciously and successfully pressed the formation of an institution among the principal landholders of the district, which, instead of occupying itself with political discussions, was devoted to agricultural researches, with Cuvier as its secretary.

Immediately on his arrival at the capital, Cuvier was nominated Member of the Commission of Arts, and Professor of Natural History at the central school of the Pantheon. Soon afterwards when *Mertrud*, the friend of Buffon, and fellow labourer with Daubenton, who had for fifty years been the demonstrator of anatomy in the Jardin des Plantes, was appointed to the chair of comparative anatomy, Cuvier was nominated to perform the active duties of the office; and thus was he, in six months from his quitting the country, introduced into that noble establishment, to which he was destined, by his energy and his talents, to impart so much additional celebrity. His father and his brother Frederic, the only remaining part of his family, were then brought to Paris to reside with him.

In December, 1795, Cuvier began his first course of lectures, and his "Leçons d'Anatomie Comparée" appeared in five successive volumes, between the years 1801 and 1805, but he published in the interval various interesting memoirs connected with the same subject; and in 1798, his Tableau Elementaire d'Histoire Naturelle. A few weeks only before his death, he reviewed the first volume of his Leçons, and prepared a new edition of it, in concert with Duvernoy. His Règne Animal appeared in 1817, and the second edition of it in 1829; but a projected work, under the designation of Grande Anatomie Comparée, has not been carried into effect. Very early in his career the attention of Cuvier was directed to the fossil bones, and thé strata in which they were deposited in the Parisian Basin. The new world of observation to which he thus was led, gave rise to the most brilliant results, and brought into operation all the estimable qualities for which he was distinguished. Such was the correctness and extent of his knowledge, that he would often, from the slightest indication, as the fragment of a bone, a phalanx, or a small articular facet, reconstruct the whole animal. This done, he communicated the result to the Institute. "They hear him with distrust, they doubt, they dispute, they deny. But in a few days afterwards the whole skeleton of the animal is discovered; the conjectures of Cuvier become facts, and incredulity is converted into admiration."

The author of this memoir gives an interesting view of the progress, nature, and extent of Cuvier's labours, from which it is only necessary further to state, that after making many detached communications to the Annals of the Museum, he published, in concert with Alexander Brongniart, in four volumes 4to, the "Geographie Mineralogique des Environs de Paris." This work appeared in 1812; but in 1822 he found it necessary to publish a new modelled edition in seven volumes 4to, in which, besides his own discoveries, he gave an account of what had been done out of France during the whole interval.

Cuvier had a robust constitution, which seemed to promise him great length of days; but on the 8th of May, 1832, during the prevalence of the cholera at Paris, the effects of which inspired him with apprehension, he attended the College of France, where he spoke much and eloquently. He was little fatigued; but on awaking the following morning felt a numbness in his right arm. He attended a meeting of the Council of State, surely a very imprudent measure, and on his return to dinner, found that he swallowed with difficulty. In a few hours the paralysis of the larynx and arm had extended itself over his whole body; respiration became difficult; and on Sunday the 13th, about ten o'clock in the evening, he died tranquil, resigned, with a perfect knowledge of his danger, and in complete possession of his faculties. On examination no cause of death was discovered; but the operators were struck with the size of the brain, and the depth of its sinuosities. So short and fatal a disease was regarded as affording an example of one of the anomalies of cholera.

With regard to his personal qualifications, the predominant characteristic of Cuvier is stated to be *a love of order*, of which his annual reports, during thirty years, in the progress of the sciences, which came under his particular attention at the Institute, afford memorable examples. For justice, candour, and moderation, he was eminently distinguished; and he exercised, very successfully, the duties imposed on him by the Government, of organizing the schools of the different countries which were under the dominion of France, during the sway of Napoleon. The intention was to bring the system of general instruction connected with them into harmony with that of France; but he saw in various countries reasons for modifying this principle of action. Viewing his commission as intended to create or to preserve, not to destroy, he formed in Italy, for example, a constitution tried by time, and consecrated by success. This he protected; and in Holland, some parts of Germany, and the Hanseatic towns, he met with institutions which tended to improve the morals of the people, and those he proposed to introduce into France. He was reserved to the world, but affable and communicative among his more intimate friends; and particularly to zealous and ingenious students. He was exceedingly charitable, but, above all, was eminently careful of his time. Every day, every hour, had its apportioned duties, and even in large society, and amid the fatigues and embarrassments of travelling, his intellectual labours never had a respite. He died at the age of sixty-three, having been born in the same years as *Bonaparte* and the *Duke of Wellington.*

The first memoir in this volume contains the *Report of a Commission of the Academy on an article by M. Ozanam, relative to the existence of arsenic in glass tubes.* The inquiry originated in the circumstance of the author, and *M. Idt* of Lyons, having been employed to ascertain whether the death of a person who had been interred seven days, had been caused by poison. They discovered traces of arsenic; but M. Idt soon after retracted this opinion, and declared that the arsenic which they had obtained in their experiments arose from the glass tubes employed in conducting them; and hence an acquittal took place of the accused person.

In conducting the investigation, the commissioners examined several specimens of glass tubes made by different manufacturers, and some of those likewise which had been employed by Messrs. Ozanam and Idt, but in none of them were any traces of arsenic to be found, except in one of dark glass of unknown origin, in which a minute portion of the yellow sulphuret was detected. When tubes were fabricated of glass purposely containing a 1-500th and 1-600th of oxyde of arsenic, arsenic could not be discovered; but if the quantity used was 1-20th, a sort of white enamel was formed, which it would not be safe to employ in the formation of drinking vessels; nor could the latter be securely made of a glass containing so little as even the 500th part, unless the temperature employed in the fabrication was sufficiently elevated to make a transparent glass. In the latter case the atoms of arsenic used in manufacturing the glass are not only very much expelled by the heat, but such as remain fixed in its substance are incapable of being given out by chemical reagents in the performance of experiments. In some examples, where a fourth part of white oxyde of arsenic was added to a globule of glass by means of the enameller's lamp, the whole was dissipated by the heat of the blowpipe, so as to present not the smallest trace of arsenic. But if white sand and arseniate of potash are fused together, and a sufficient quantity of subcarbonate of soda added, there is formed a green glass, partly transparent and partly opaque, which contains arsenic, and is capable of exhibiting it by analysis. Even in this case, however, it would be in too small a quantity to be nocuous. But considering that the glass which is employed in the manufacture of chemical instruments has very rarely arsenic at all in it, and that when there is a small portion, it is wholly volatilized by the heat, so as to leave no sensible trace behind it, the commission agrees with M. Ozanam, as to there being no fair grounds of apprehending a doubtful result in experiments conducted in glass vessels for the purpose of ascertaining the existence of arsenic.

Remarks on the *inconveniences of percussion in the formation of pills which contain certain preparations of Mercury; by M. Planche.*

Long-continued percussion is generally recommended in the formation of pills, for the purpose of mixing more intimately the substances which compose them; but by this means mercury is very often brought back to its metallic form; to avoid which, percussion, the author thinks, should be entirely given up, and careful trituration alone employed for the purpose of mixing the substances sufficiently together.

Memoir on superficial cancers which are believed to be deep-seated, with observations on cases where patients have been preserved from the amputation of important organs; by J. Lisfranc.

The attentive study of cancerous affections has convinced the author, that diseases of this kind do not at once attack all the tissues of a particular part, and that extirpation, when it is had recourse to, may therefore be limited to one portion of an organ, without the necessity of its being attached to the whole. Cancer of the stomach, he found, was sometimes limited to the muscular coat, sometimes to the cellular which unites it to the villous; the pleura and peritonæum often oppose a barrier to the extension of cancers of the breast and umbilicus; and in affections of the penis, the *corpora cavernosa* frequently remain untouched. In applying these principles, the author was able, in the case of a diseased penis, by very careful and slow dissection, to remove the whole of the diseased portion, and leave a considerable part of the organ remaining. The same favourable result attended an operation on the scrotum and on the tongue, and he likewise had it in his power, successfully to remove a cancerous portion of the size of a six franc piece, from the inferior and posterior part of the vagina. He proposes a similar operation in carcinomatous affections of the rectum and os *uteri*; and he gives, in a subsequent part of the volume, another memoir on the excision of the inferior part of the rectum which has become cancerous.

In this paper he states, in the first place, his reasons for believing, that an operation of this kind, at the extremity of the rectum, may be practised with safety. The peritonæum terminates at six inches from the anus in women, and at four in men. The vessels at the extremity of the rectum may be opened without much inconvenience, and an oval incision made in the skin which surrounds the anus, which allows a diseased part to be conveniently reached. The cellular tissue which unites the rectum to the vagina in women, and to the urethra in men, allows a ready separation of those organs with the fore-finger during an operation, while he considers that there is a sort of second sphincter above the anus, which may come into use when the other is removed. M. Lisfranc, therefore, felt himself justified in attempting the cure of cancers of the rectum by incision; but he proceeded gradually from the more superficial description, to those which involved a portion of the sphincters, and then to the removal to the extent of even three inches and a-half of the inferior orifice of the rectum. The author mentions in detail the steps of his operation, and states, that of nine cases operated upon, six did well, and three died. But the chances of success he considers as being still greater than is here mentioned, if the disease is taken at an earlier period.

Medico-Legal considerations on Monomania; by M. Marc.

The criminal records of every country afford abundant evidence, that the scaffold in former times has had many victims, who would now be confined in lunatic asylums, or otherwise treated as insane. "It was reserved for *Pinel*," says the author, "to designate the extraordinary position in which, without any sensible aberration of the intellectual faculties, persons are led to acts which, in the eyes of the vulgar, are only explicable on the grounds of extreme depravity. At a later period, his distinguished pupil, *Dr. Esquirol*, established and developed the doctrine of partial delirium, or monomania, which is characterized by a small number of fixed, dominant, and exclusive ideas, and even in one idea alone, to which the insanity is confined, the reason being, with regard to other objects, perfectly sound." Several examples are given of murders perpetrated by monomaniacs, some of which seemed to be the result of blind and instinctive impulse independent of the will, and others on certain processes of reasoning which it is difficult to understand or to develope. Various examples have occurred in this country, in which misplaced sympathy, and the love of the romantic, have elevated to a singular species of dignity, the perpetrators of some of the most heinous offences, and thus invested them with an interest which has sometimes had a powerful and unfortunate influence on weak and susceptible minds.

Of this effect the author gives an instance in the case of *Augusta Strohm*, who, when very young, had attended at Dresden the execution of a woman named *Schaefer* for murder. The care with which the culprit was prepared for death, the procession to the scaffold, the execution, produced on Augusta Strohm an impression of which she could never get rid; and from this time she thought that it would be the greatest blessing to end her life in the same way, to have the same preparation for death, and to have an exit eqnally edifying with that of Schaefer. The idea never quitted her; but her moral principles struggled against it, till the occurrence of another execution for murder, that of a man named *Kaltofen*, which took place at Dresden many years afterwards, when she was about thirty. The deportment of this man before the great number of persons who visited him in prison; the presence of a priest, who never ceased to pray with him; the hypocrisy of the culprit himself; the imposing appearance of the military escort which conducted him to the scaffold; the immense crowd of spectators, and the sentiment of compassion which, in spite of the enormity of the offence, depicted itself on the countenances of many of them; the calm aspect of the condemned person; his address to the people; the approach of the priest to soften the last moments of his life, together with the promptitude and apparent mildness of the kind of death which he suffered, changed into a fixed resolution the perverted feelings of Augusta Strohm.

Six weeks afterwards, she invited a fine young woman, a very particular friend, to take coffee, and availed herself of an accidental slumber to attack her with a hatchet. This not sufficing for her destruction, the consummation of the deed was perpetrated, after a faint struggle, by stabs on the breast with a knife. Strohm then cleansed and adjusted the room, placed the body on the bed, and lay down beside it, with the intention of passing the night. But when day light began to disappear she was seized with a tremor and oppression, and determined immediately to deliver herself up to the hands of justice, which she only meant to do the following morning. She then dressed herself with care, took with her a prayer book, and also money and linen, which she knew would be necessary during her imprisonment, and forthwith presented herself to an officer of police, as the murderer of her friend, whose body she represented would be found in her apartment. We are left to infer the close of the catastrophe.

Report on some substances found in an Egyptian Mummy; by MM. Boudet, Boutron-Charlard, and Bonastre.

These substances were a portion of muscular flesh; a crystalline mass formed upon it; and a compound powder used by the Egyptians in embalming.

The flesh belonged to the upper part of the thigh, and had a strong smell, and the colour of bistre. It was covered with bandages, and on examination the fleshy muscular layers appeared distinct, but with a white, pearly, crystalline deposit between the layers, and among the fibres. The crystalline matter was fusible in 59° Centigrade, = 139° Fahr.; was insoluble in cold distilled water, and very slightly soluble in boiling,—40 pints of boiling alcohol dissolved 10 parts of this substance, and the solution reddened turnsol. Weak *liquor potassæ* dissolved it readily, and on the addition of cold water, bimargarate of potass was thrown down. It was inferred to be of the nature of fat, and to be analogous to margarine humaine, or the margaric acid of *M Chevreul.*

The powder consisted of a resin soluble in alcohol; of a gum-resin resembling myrrh; of vegetable fragments, very analogous to nutmeg; of chloride of sodium and lime; and of crystalline matter, such as is mentioned above.

A view is given of the method of embalming described by the ancients.

Report on an Antisyphilitic earth of Abyssinia; by MM. Cullerier and Soubeiran.

Nothing metallic was detected; but 100 parts contained 3.74 of soluble matter, which consisted of

Ulmate of soda - - -	.74
Carbonate of soda - - -	2.12
Sulphate of soda - - -	.86
Common salt - - - -	.2
	3.74

Memoir on corporeal exercise, in its connection with the means of preventing or removing deformities, particularly of the spine, by M. Pravaz.

The author appears to have made a previous communication on this subject, to which he refers in many parts of this communication.

In deformities of the spine he considers extension, as likewise all those species of exercise which are in common use, as having a tendency to increase the disease. But the ascent of a mast by a floating line, the mounting a rope ladder, and particularly the action of swimming, he regards as placing the muscular movements connected with the spine in the most salutary position. He has therefore directed his principal attention to the construction of an apparatus by which the action of swimming can be readily imitated. This consists of an inclined plane, on which the patient, lying on his face, is to raise himself by means of the arms, and two lateral projections of which they take hold. The body is to descend by the action of gravity, moderated by a sufficient counterpoise.

In the fourth volume, the author gives some memoranda on the modes of restoring the regular shape of the thorax.

Report on a case of congenital exstrophy of the Bladder; with researches on some of the principal questions which attach to the existence of this deformity; by M. Velpeau.

The author and *M. Breschet* were deputed to report on the case of a child six days old, born at its full time, which had in the hypogastric region, just below the umbilicus, a red irreducible bleeding fungous tumour, about the size of an egg, which distilled a limpid fluid from two little papillæ, having all the properties of urine. This tumour was constituted of the posterior part of the bladder; and M. Velpeau gives a detail of many cases of a similar kind which are to be found in authors, and of which he has not met with fewer than 100. These cases were long regarded as hernia of the bladder; but TENON satisfactorily demonstrated the error of this opinion, and showed, that tumours of this kind consist of the posterior part of the bladder pushed forward by the abdominal viscera to supply the loss of substance which has taken place in the anterior part of that organ, and in the parietes of the abdominal cavity below the umbilicus. Defects of this kind are not to be regarded as monstrosities, but as the results of disease; the parietes of the abdomen, in the first instance, and the anterior surface of the bladder, in the next, being destroyed by ulceration; and the posterior surface of the bladder uniting by adhesion with the destroyed edges of the abdominal parietes, and thus presenting externally the spongy mucous surface of the bladder itself.

The memoir of the late Dr. Duncan Junior on the same subject, published in the first volume of this Journal, is repeatedly quoted with approbation.

Memoirs on Aneurisms; by M. Gilbert Breschet.

In the present article, which occupies the whole of the second fasciculus, the author treats in successive sections, of the true, the mixed, and the varicose aneurism.

The *true aneurism* consists in a dilatation of the arterial parietes, without any apparent lesion or solution of continuity of the vascular coats. The largest as well as the smallest arteries are liable to this affection, as are likewise those which belong to osseous matter, as well as to the softest parts. The author divides true aneurism into the sacciform, the fusiform, the cylindrical, and the varicose. Gentle compression he considers as the most promising remedy in all those varieties; with the use of local and general astringents, and the subacetate of lead.

The *mixed aneurism* consists in a distension of the external coat of an artery, and the dilatation of the internal, which latter forms a sort of hernia by passing through an interruption in the middle coat of the vessel.

The *varicose aneurism*, or that by transfusion, originates in a wound made in an artery through the contiguous vein. The anterior opening of the vein healing, the posterior one continues unclosed; its parietes uniting by adhesion with the wounded coats of the artery. By this means the blood of the artery, at every systole, passes into the vein, and distends it, particularly above the wound. The blood of the vein, on the other hand, passes into the artery at the diastole, and hence arises a varicose dilatation of the artery below the wound; weakness of the pulse; and thinness of the coats of the vessel; together with a diminution of the temperature of the sensibility, and of the mobility of the parts situated between the wound and the capillary vessels which, by this means, fall into a sort of torpor resembling asphyxia. If these consequences should exhibit themselves, slight compression, which would otherwise suffice as a mode of treatment, is ineffectual; and it becomes necessary to have recourse to the application of a ligature both above and below the wounded part.

Medico-Philosophical considerations on the opinion of Aristotle, that the greater number of distinguished men are disposed to insanity; by J. H. Reveillé-Parise.

The author conceives that predisposition to insanity is connected with an organization more or less delicate, with unusual susceptibility of the nervous system, with great sensibility, a lively imagination, a moral faculty much developed, and an understanding much cultivated. Every man who is born with superior qualities wishes to distinguish himself from the bulk of manhood. He is anxious that his name should shine in the eyes of his contemporaries and of posterity; glory is never out of his thoughts; and he may be said to be employed all his life "in the fabrication of his statue." To have any chance of succeeding in his aspirations for fame he has labour to perform, obstacles to surmount, and of consequence he is liable to inquietudes and heart-burnings, and suffers agitations and emotions at one time painful, at another delicious, but always lively, multifarious, and vibrating. From these circumstances, the nervous system acquires an extreme mobility, and that sort of irritative weakness which renders the possessor very susceptible of all kinds of impressions, and exceedingly liable to disease. It has been thought that the learned are less subject to mental aberration than the poet or the artist; but the author adduces several examples to show that this is an erroneous opinion.

Of the Convulsive affections of young children compared with apoplexy and tetanus; by Ant. Dugès.

The convulsions of which the author treats resemble those which sometimes occur in child-bed women. Their causes are various, and may be referable to pressure on the head; to dentition; to the exanthemata; to derangement in the digestive functions; or to worms in the alimentary canal or stomach. He considers the disease as arising from an idiopathic or sympathetic affection of the encephalon, and more particularly of the cortical substance of the convolutions of the cerebrum and cerebellum. Sometimes it assumes an intermittent type, with isolated and well-defined paroxysms of an epileptic character: sometimes it is preceded by an apoplectic state, which is either the cause of it, or to which it gives origin; and sometimes the apoplectic symptoms follow its attack. The disease may also present itself in a continued, or only a remittent and tetaniform character; and it often exhibits much irregularity in its phenomena. The practice necessary in its treatment much depends on the circumstances producing it. Whether it is symptomatic, or essential, it may be treated with antispasmodics; and the symptoms sometimes disappear by the operation of an emetic or purgative. If the disease arise from congestion or effusion in the head, evacuations of blood are called for; and if it assume a chronic form, and a continued type, some inflammation or effusion in the spinal column may be suspected, which may require the use of leeches or local irritants; and the same, should paralysis have been the result.

Observations relative to the use of the Holly (Ilex Aquifolium) in the treatment of Intermittent Fevers; by A. F. Chomel.

Though the cinchona is the medicine to be principally depended upon in the treatment of intermittent fevers, it is important to have a substitute when that medicine may happen to disagree, to be contraindicated, or to be inefficient. Of twenty-two cases which occurred during a few months in the Charité, seven had no paroxysms after admission, the change of circumstances having a sanatory operation; in four, the disease was evidently on the decline; in eight more there was a combination of the intermittent symptoms with some slight inflammatory affection, by which they might perhaps be produced; so that only three cases seemed to be fit objects of experiment, but in these the medicine seemed to be inefficient, and quinine was had recourse to for the removal of the disease. Had the holly, therefore, been given, without the circumspection exercised by the author, the deduction might have been a very erroneous one; namely, that it was successful in nineteen of the twenty-two cases, and failed only in three of them.

Experiments on the colour produced by the purple cow-wheat (the Melampyrum arvense,) and on the means of ascertaining its existence in flour; by M. Dizé.

M. Gaspard presented to the Royal and Central Society of Agriculture a paper on this subject, which was favourably reported on by M. Henry; and the present memoir may be regarded as a prosecution of the same subject. After giving a summary of those observations which relate principally to the chemical analysis of the Melampyrum, the author considers the mode in which its presence is most easily detected. The characteristic action of acetous acid on the colouring matter of the grain sufficiently discriminates its existence; and for this purpose, M. Dizé directs a soft paste to be made of flour, supposed to contain it, with a sufficient quantity of acetic acid, diluted with two-thirds of pure water. This is to be baked on a silver spoon, and on the evaporation of the water and acid, the little paste is found to have acquired a reddish violet-colour. Some additional remarks are annexed by M. Henry, from which, as well as the experiments of M. Dizé, it appears, that the colour, like that of indigo, is developed by fermentation, followed by great heat; and that it depends on a peculiar character, which the caseous material abounding in this plant possesses.

Of the organic changes remarked on the opening of an ox of five years old; by M. Dupuy.

This animal was affected with loss of power and sensation in its two hinder extremities; and its digestive functions, and the operations connected with them were much impaired. The principal disease was found in the lumbar region of the spinal column, where the medulla was much softened, and rendered darker in colour; the nerves proceeding from it being, at this place, much compressed and contracted, and the membranes thickened, with calcareous concretions of a yellow colour on the external surface.

Report by M. Dupuy on an Epizöotic disease, observed by M. Fodéré.

This complaint led to much destruction among cattle in the department of the Lower Rhine; and M. Foderé's attention was directed to its nature by the public authorities, in the years 1821 and 1822. It was distinguished by failure of strength; want of appetite, and power of rumination; frequent pulse; skin adhering to the bones, particularly at the chest; thirst; sensibility of skin; cough; difficult respiration; discharge of yellow and bloody matter from the nostrils; constipation or fœtid diarrhœa; convulsions, and death in eight or ten days. Abortion generally occurred in the course of the complaints in cows with calf. Much serosity was found in the chest; the pleuræ were adherent; the lungs were much disorganized, and did not throw out blood on cutting into them; the mucous membrane of the trachea was rather pale, and much covered with mucus.

General Report on the epidemics which have prevailed in France, from the year 1771 to 1830, of which accounts have been transmitted to the Academy, by the Commission for Epidemics.

The Royal Society of Medicine, for fifteen years after its establishment in 1776, was closely occupied under the Secretaryship of Vicq-d'Azyr, in inquiries into the existence and nature of epidemic disease in France. On the occurrence of the revolution, and the dissolution of this institution, the Society of the faculty of Medicine, during eighteen years of its existence, pursued the same researches, the results of many of which were published in its Bulletins. The Royal Academy of Medicine, at its formation in 1821, became possessed of the documents which had before been collected and the continuance of the inquiries, which took place under the sanction of the minister of the interior, put them in possession in the whole of the history of 900 epidemics, up to the year 1830, without taking into account those of small-pox, which are published annually in the reports on vaccination. These histories, which are about 1160 in number, include about 1370 communes, 179 arrondissemens, and 72 departments. A summary of them is given in several tables which are annexed to this article; and various pieces of important information are communicated, relative to the air and soil of France; and to the dwellings, food, employment, and moral affections of the inhabitants. The extent of sixty years, which this memoir embraces, makes it difficult to discriminate between the present state of the country, in many of those particulars, and the circumstances of improvement which have taken place during so long a period, and amid the occurrence of such an ample series of important events. Recommendations are made by the Academy to the minister of the interior, for the purpose of rendering more effective inquiries into the topography and diseases of France; and we have no doubt of the result being eminently advantageous. Considering the difficulties which exist in improving public medical arrangements, we are not surprised to hear of complaints being made of ignorant practitioners, and credulous patients; and that the latter are not confined to the lower orders of society, but are sometimes to be found among the wealthy and influential. A deserved compliment is paid to the unwearied attention and assiduity of many of the public medical functionaries; and a severe but just censure is pronounced on the parsimony of the Prefect, who "dans le comfortable de son cabinet," has sometimes reduced the honorarium of the physician below the wages of a Paris artisan.

Memoir on the question, Whether it is proper, in unnatural presentations, to extract by the head? by M. P. Dubois.

The result of the author's researches on this subject is, that though delivery by the head is the natural and usual process, (and it has occurred in more than 95 cases in 100, at the Hospice de la Maternité,) yet it does not follow that an attempt to bring about a head presentation is always justifiable and proper. The efforts necessary to effect this object appear to the author very much to interfere with the circumstances which are favourable to ordinary natural labour, and therefore to destroy the argument which analogy might otherwise offer in its support.

Some farther observations are made on the same subject at p. 475 of the 4th volume.

Report of M. Ollivier (D'Angers,) on the case of a tumour developed in the Testis of a child, containing hair and teeth; addressed to the Academy by M. le Docteur André.

M. André was disposed to consider the substance found in this tumour, as the debris of a fœtus, engrafted in the testicle; but M. Ollivier regards the case as merely one of those of which Meckel has traced the general history in a memoir on the hair and teeth, which develope themselves accidentally in the human body, contained in the 4th volume of the Journal Complementaire du Dictionnaire des Sciences Medicales.

New researches on the permanent retraction of the fingers; by Dr. G. Goyrand: followed by a report made to the Academy on the subject of them, by L. J. Sanson.

The retraction here mentioned is considered by the author as not dependent on the flexor tendons, or on any expansions from the palmar aponeurosis, but as arising from the formation of cords, or bridles, made up of parallel fibres, fixed to the sheath of the flexor tendons; white, strong, inextensible, and having the aspect and character of ligaments. In the treatment of these affections, the author makes a longitudinal incision over the fibrous cords, which he detaches from the integuments, if adherent, and afterwards divides by a transverse incision, employing, a director should this be deemed necessary, to avoid injuring the tendons below. The fingers are then to be kept extended for six weeks or two months; and when the parts are healed, gentle flexion and extension are to be daily employed on all the joints of the fingers operated upon.

Medical History of a Disease which prevailed in the Prisons at Toulon, during the months of December, 1829, and of January and February, 1830; by M. Fleury.

The prisoners were about 4000 in number, one-half of whom were in prison ships, which are represented as having been very insalubrious; the remainder in houses on shore. The symptoms were very much those of typhous fever, united with considerable inflammatory affection of the chest, and in the progress of the disease obscure delirium generally presented itself. Some were carried off in the first days of the attack, under much appearance of determination to the brain or lungs, but generally the former. The disease, however, seldom terminated before the 7th or 11th, and in general not till the 14th or 17th day. The deaths were about 1 in 7. The encephalon was usually found to be much injected with serous effusion under the arachnoid coat, and in the ventricles. In a part of the lungs, there was usually a sero-sanguineous congestion, which was regarded as the commencement of gray hepatization. Appearances of congestion were pretty general over all the abdominal viscera. The mode of treatment at the commencement was antiphlogistic. Cool acidulated drinks were copiously employed, and leeches freely applied to the neck, temples, and behind the ears; cold washing was used to the head; "slices of lemon-peel bound round the forehead;" fomentations and sinapisms applied to the lower extremities; castor oil or calomel given when the bowels required it. If, in the progress of the disease, a gastric or enteritic tendency discovered itself, enemas of camomile, cinchona, or rhatany with camphire, were employed. As the disease advanced, serpentaria with acetate of ammonia and camphire were exhibited; and wine when the failure of strength became considerable.

The fourth volume commences with an eulogium on the Baron Portal. This distinguished pathologist was born at Gaillac in the department of Tarn, in the year 1742, and was descended from ancestors who had practised, time immemorial, the healing art. He went at 10 years of age to the College of Alby; and at 18, to the celebrated medical school of Montpellier, from whence, after taking his degree in medicine, he repaired to Paris at the age of 23. Recommendations which he took from the Archbishop of Alby (whom his father had cured of a slight complaint) obtained him the patronage of Senac and Lieutaud, which soon led to his introduction into the Academy of Sciences, and to the honourable occupation of assisting Lientaud in the publication of his Historia Anatomico-Medica. In 1776, he was appointed to succeed Ferrein in the School of Medicine in the College of France; and in 1776, was nominated by Buffon as associate with Petit in the chair of anatomy at the Jardin du Roi, though Vicq d'Azyr had acted as his substitute and had his good wishes. Before the revolution he was physician to Monsieur; and on the restoration of the Bourbons, was made physician to Louis XVIII. and at his death to Charles X. He was nominated Perpetual President of the Royal Academy of Medicine at its formation; and was a member of the general council for the management of hospitals. He was created a baron by Charles X., having been previously a Chevalier and a Commander of the Legion of Honour. He died in 1832, at the age of 90, having suffered much by stone; and a large calculus and four smaller ones were found in his bladder. Portal's works were numerous and activity of mind during the whole of his long life. amiable temper and good manners; and his soirées, wh a week, were the resort of the most eminent men of To his influence with Louis XVIII. was in a principal blishment of the Royal Academy of Medicine.

Of the Plastic malignant or Gangrenous Angina, which form at St. Denis, and more particularly in the Royal estab of Honour, in the years 1827 *and* 1828; *by M. Bourgeois.*

At this establishment, which occupies the ample site of abbey, there are 700 females of all ages, supported and educated at the expense of government.

The disease was characterized by swelling in the parotids and in the posterior fauces, which were covered sometimes with much white mucus, at others with grayish white pellicles; by cough and dyspnœa; slight sore throat and some difficulty in swallowing. There was little fever at the commencement, but the strength soon became reduced, and the patients were sometimes suffocated early in the disease. Sometimes the complaint went on for twelve or fourteen days, and then terminated fatally. In most cases there was an expectoration of a tubular membrane, such as occurs in croup, which relieved the symptoms to a certain extent, though the disease went on for many days subsequently, and the patients were hardly recovered in less than a month. There were fifty-seven cases, of which five terminated fatally.

In the bodies of those which were examined, a false membrane was found lining the interior of the larynx and trachea, and extending down to the bronchia, and sometimes a short distance into the œsophagus. Leeches and blistering were freely employed; but most advantage was derived from the repeated application of strong muriatic acid with a camel hair-pencil to the affected parts of the posterior fauces. When the impatience of the patient made the use of this remedy difficult, a *speculum oris* became necessary, and some mechanical means of procuring quiescence.

Memoir on Ligature of the Tongue, and of the Lingual Artery, preceded by a case of cancer of the Tongue, cured by means of a ligature placed on that organ; by G. Mirault, M. D.

In a case of cancer of the middle-third of the tongue, in a young woman of 23, when the author wished to tie the lingual arteries preparatory to the removal of the affected part, he was disappointed in his expectation of being able to reach the artery on the left side, but he succeeded in the right with great relief to the symptoms; and in about three weeks, performed the operation of placing a ligature, by means of a large curved needle, round the affected part of the left side of the tongue, through an opening made about a finger's breadth under the chin, in the median line of the neck through the skin, the adipose substance, the raphe of the mylo-hyoideus, and the cellular interstice of the genio-hyoideus; the tongue being held firmly out of the mouth by an assistant. In about nine days, the strangulated part separated, and as soon as this had taken place, the author placed a ligature through the same opening, round the affected part of the right side of the tongue. Twenty-seven days after the second operation the ulcer was nearly cicatrized, and only a small indurated portion remained of the size of a filbert. The patient was under treatment for two months, by which time her health had suffered considerably. Country air and proper nutriment restored her to perfect health in about six weeks, when she came to Angers, and was exhibited before the Society of Medicine. The wounds were then cicatrized; there was little loss of substance; she could speak so as to be understood, and her taste was nearly as perfect as it ever had been. The author makes many important observations relative to the practice which he has here employed, and the mode of applying a ligature on the lingual arteries.

Report by M. Girard, on the account of a dropsical disease in men and sheep, by MM. Hamont and Fischer.

It appears that in Lower Egypt, the whole of the labouring population are badly fed and clothed; have wretched habitations; often work in swampy and insalubrious places; and are exposed to much vicissitude of season. Hence their bodily formation is weak; their children scrofulous and rickety; and old age very speedily comes upon them. The oppression and tyranny to which they have been long subject by the exactions of government, (but which one would hope is now diminishing under the sway of the present chief,) leave nothing of the more nutrient product of the soil to the persons who raise it. The soldiers themselves are little better circumstanced, and the effect of these depressing causes is to give rise to dropsical affections, often conjoined with dysentery, which, according to Messrs. Hamont and Fischer, who were medical men of eminence connected with the Medical School of Abouzabel, occasion a fifth of the whole mortality.

Sheep seem to be affected extensively with the same kind of disease, and not fewer than 16,000 annually die of it. It generally appears soon after the inundation of the Nile begins to retire; and is supposed to arise from the animals feeding with avidity on a plant called *Bisse*, which covers the fields soon after the retreat of the waters, and from which the natives have given to the disease the appellation of *Bissa*.

Remarks on the Structure of the Larynx and Trachea; by E. A. Lauth.—Memoir on the obliteration of the Bronchia; by A. C. Reynaud, M. D.

The object of the first of these communications is to examine some controverted points relative to the anatomy of the larynx and trachea, particularly as relating to the formation of the voice; the intention of the second is to give a view of the nature of obliteration of the bronchia, and of the circumstances under which they occur. Both papers are illustrated by appropriate engravings. The small *cul de sacs* in which the bronchia terminate may sometimes, according to M. Reynaud, be obliterated by an agency resembling that of inflammatory action, without either internal deposition or external pressure. This is the most frequent cause of coarctation which has come under his notice. The deposition of tubercular matter into the cavity of the bronchial cells is a second cause of obstruction, and a third arises from external pressure either produced by the pressure of calcareous deposits, or of tubercular formations.

Remarks on Rachitis, including observations on the changes observed in persons who have died of this affection, and on the treatment of deformities of the osseous system; by M. Salmade.

The author considers the disease as bearing a strong analogy to scrofula; and recommends tonic medicines, well regulated exercise, and a nutritious diet of animal and vegetable food in its treatment; but he entirely forbids (though without any apparent good reason) the employment of milk, or of any portion of farinaceous aliment.

History of a Case of imperforated anus and urethra; by J. N. Roux, M. D.

In a child of two days old, the urine was removed by perforating with a stilette the membrane which obstructed the passage. An opening was then made in the middle of the perinæum, and the *sphincter ani* exposed, which was seen to contract when the child cried. The incision was carried on towards the *os coccygis*, through the *levator ani*; and the operation finished by a straight bistoury, which was projected into the cavity of the rectum, in such a manner as to avoid the bladder; and the incision enlarged in withdrawing the instrument. The meconium was evacuated; the intestine kept clear by injections; the artificial anus kept enlarged by bougies, and a complete cure effected in a moderate time.

History of a reduction, after the lapse of forty-five days, of a luxation of the humerus downwards and outwards, into the infra-spinous fossa; by M. Lepelletier (de la Sarthe.)

During the extension necessary for effecting the reduction, a noise was heard, which seemed to the author to arise from the giving way of the adhesions between the head of the humerus and the infra-spinous fossa. The reduction was readily effected by raising the head of the humerus, and depressing the cubital extremity. A cure was accomplished.

Operations of Lithotrity practised with a brise-pierre, by means of pressure and percussion; by M. le Docteur Segalas.

Ten cases are narrated, all of which did well.

Report made to the Academy on the proposition to place the bust of Corvisart in its meeting-room; by M. Bourdois de la Motte.

To avoid obeying too hastily the impulse of feeling, it is enacted by a law of the Academy, that no statue or bust of a member shall be placed in the society's hall till after a lapse of five years from his decease; thus allowing sufficient time for a dispassionate appreciation of his merits. It is unnecessary to say that the proposition was affirmed unanimously; but in a general resumé of Corvisart's character, an anecdote is given of him, which may not be uninteresting to our readers. At the moment of the birth of the King of Rome, Corvisart addressed the following words to the Emperor Napoleon. "Sire, this infant should be the full completion of all your wishes; consider the position from which you set out. In less than ten years, a simple officer of artillery, Captain, General of Brigade, General in Chief, First Consul, Emperor, husband to the Archduchess of Austria, father of a male child, you have attained the highest point to which the wheel of fortune can raise the most illustrious: Stop, Sire! fortune may be wearied; descent only remains." "Vcilà bien, lui repond l'Empereur, un vrai discours de Champenois." "But, gentlemen," adds M. de la Motte, "what prophecy was ever more rigidly accomplished, and what man would have dared, amid the general intoxication, to give so striking a proof of judgment, foresight, and courage?"

Some remarks on Lithotrity; by Dr. Civiale.

The great attention which has been paid to everything relative to calculous diseases in the country has made the subject of lithotrity to be viewed with very high interest ever since it was first brought forward by the distinguished author of the communication before us; and yet it is singular, that its precise practical importance, and the circumstances under which it may be best employed, have not yet been sufficiently ascertained, nor perhaps quite enough attended to, by the most distinguished operating surgeons of Great Britain.

M. Civiale complains that the success of his operation, and the circumstances following it, have often been much misrepresented, even when there was no difficulty in ascertaining the precise facts. Between the years 1824 and 1833, he operated upon 244 patients by lithotrity, of whom 236 were completely cured; 3 incompletely; and 5 died. He promises the particulars of every case, as a proof of their precision and authenticity of his statement. There was an average of about four and a fraction operations in each case. At the commencement of his practice, the operations lasted about half an hour; but he soon diminished the duration to from five to eight minutes; preferring a greater number of short sittings to a smaller number of long ones. When the calculus is large a previous fracture of it by percussion he considers as expedient; but he attributes many of the defects which have been attributed to his operation in other hands, to ill made instruments, or an unskilful use of them.

He gives a tabular view of the success of lithotrity at the Hospital Necker (an establishment devoted to the treatment of calculous diseases,) in the years 1830, 1831, 1832, and contrasts it with the erroneous representation made on the same subject. From this account it appears, that the patients admitted were 93, of whom 51 only had stone. Of those 51, in 27 lithotrity was performed, and all did well; 8 had the operation of lithotomy performed, and 5 died; while 16 were operated upon in no way, 6 of them quitting the hospital, and 10 dying in it. In the statement circulated to the disadvantage of lithotrity, he informs us, that the 10 deaths mentioned as having taken place in cases where no operation had been performed, were attributed to lithotrity, when there had been not a single unfavourable result; and 1 death in 3, mentioned as occurring in the persons operated upon, whereas it was only 1 in 7, even when the lithotritized cases were blended with the lithotomized. The author expresses his regret, that persons should not have taken the trouble to ascertain the precise state of the facts at the proper quarter; a thing which he states to be the more easy, as those facts are recent, have been observed in a very short space of time, and have occurred in an hospital which offers every facility for discovering the truth.

Notice concerning the poisoning of seven horses by the Arseniate of Potash; by M. Bouley the younger.

By an unfortunate accident, those horses took, with their corn, some arseniate of potash, which escaped from a packet containing it. Four of them died in from thirteen to seventeen hours; the remaining three, to which was given the precipitate, which was formed by volatile alkali, from a solution of sulphate of iron long previously exposed to the air, lived respectively thirty-two hours, fifty-four hours, and nine days. The symptoms were violent colic and diarrhœa; and appearances of inflammation were discovered after death in the stomach, intestines, and bladder. Numerous ecchymoses were seen in the basis of the left ventricle of the heart, but no traces of poison were discoverable in the contents of the stomach or bowels.

As the antidote employed seemed to have some effect in prolonging life, the author offers, in a subsequent paper, some observations *on the efficacy of the hydrate of the per-oxide of iron as an antidote to arsenic.*

The experiments were 17 in number, and the following is the result of them. The author found both the hydrate of the per-oxide of iron, and the sulphate of iron, in noway serviceable against the arseniate of potash. A horse requires not less than two ounces of the white oxide of arsenic to destroy him, and death happened in the three instances mentioned, in forty-five, forty-eight, and fifty-two horses after its administration.

Hydrate of per-oxide of iron acted as a complete antidote to white oxyde of arsenic, in four cases, when given in doses of thirty-two times the quantity exhibited.

The same effect happened when the antidote was administered two and four hours after the poison; but when it was delayed to twenty-five hours, and some of the first appearances of poisonous operation began to exhibit themselves, the prophylactic agency was entirely lost, and death speedily took place. In one of those cases, in which the horse was destroyed sixty-two hours after the poison, and its antidote was given, no trace of arsenic or its neutralized combination was to be discovered by the most careful analysis.

Memoir on Tubercles, in answer to a question proposed by the Royal Academy of Medicine on the 28th of August, 1827; by F. P. Ravin, M. D.

In this essay, the author examines, in considerable detail, the nature of the various descriptions of tubercles, with their diagnosis, prognosis, and treatment. He considers them of two species: the one as formed in serous, cellular, and other analogous tissues, which is the more unusual description; the other, of glandular tissues, which is the more common; but they do not often both occur in the same subject. Tubercles of the second species, when they occur in glandular follicles, constitute the greater number of the cases of *phthisis pulmonalis.* Inflammation of the mucous membrane of the chest or abdomen may be communicated to the glandular follicles which are contained in or adherent to them, and thus bring them to a tubercular state; and, on the other hand, a tubercular state of these follicles constantly brings on inflammation of the mucous membrane with which they are contiguous. Phthisis does not consist either in bronchitis or chronic pneumonia, but depends most frequently on an affection of the mucous glands, to which succeeds ordinarily disease of the bronchia and pulmonary tissue. Owing to this mixed character, the author would give the appellation of *Adeno-bronchitis* to the ordinary *phthisis pulmonalis*, and *Adeno-laryngitis* to that in which the larynx is most affected.

Fracture of the Vertebral Column; by E. H. Lauth.

A man who, in July, 1830, fell from a second floor window, and recovered, with deformity of the cervical column, but without paralysis, died in December, 1833, of pericarditis grafted on an aneurism of the heart. Extensive ankylosis in the cervical column, and irregular destruction of the intervertebral substance, were the principal phenomena observed on inspecting the body; and it appears to the author, that the immediate effects of the accident were to press on, and in some degree to crush, the bodies of some of the vertebræ, without compressing the spinal marrow. The disorganized parts of the bones being absorbed, the detached parts became soldered to the contiguous portions, and cicatrization thus effected without accident.

Case of complete obturation of the pupil of the left eye after the operation of Cataract; by M. Silvy.

The extraction of a well-formed cataract of the left eye was performed by an empiric, who, for his own credit, cruelly exposed the eye to a strong light immediately after the operation. In consequence of this, the membrane of the crystalline lens soon became opaque, and so adherent to the edges of the pupil, as to prevent the passage of a single ray of light. By the introduction of a couching needle half a line from the insertion of the iris on the outside, the posterior chamber was entered, the crystalloid disengaged by a careful movement of the needle from above downwards, and its debris pressed to the bottom of this chamber, so as to disengage the pupil entirely. By prudent precautions, the sight was perfectly restored in nine days. This operation was performed three months after the extraction, the sight of the right eye having been previously lost, from a complete opacity of the transparent cornea.

Case of a complete luxation of the Tibia backwards, by M. Blanchard; with the extract of a Report relative to it, by Messieurs Breschet, Sanson, and Gimelle.

The accident is exceedingly rare, three cases only of the description, according to the statement of the reporters, being on record, and those imperfectly described. The reduction was readily performed; but the reporters consider it impossible for such an accident to take place "without a rupture of the cross ligaments, or some other serious injury at the knee-joint."

Case of severe luxation of the Knee, with reflections on the nature of this accident, and on the mechanism of the causes which produce it; by the Baron Larrey.

In all cases of this kind, the author is of opinion that an ankylosis of the joint is the only favourable issue; and that where there is extensive laceration of the ligaments complicated with an external wound, and protrusion of the head of a bone, as in the present instance, immediate amputation should be had recourse to. The patient was in this case averse to the removal of the limb at the time that it was first thought desirable; and though he at length submitted to it, it was not till the twenty-first day after the accident. For some days the patient went on well; but symptoms of pneumonia, with which he had been previously affected, came on about fourteen days after the operation, which, becoming combined with cerebral inflammation, soon carried him off.

Case of loss of Memory; by M. Kæmpfen.

A cavalry officer had a fall from his horse in the riding-school, and was pitched on the right parietal bone. He had vomiting and slight syncope, and a total want of recollection of every thing which occurred the day previous to the accident, and for some hours after it. In a few days he was sufficiently recovered to return to his duty; but his recollection of what happened during the two periods just mentioned had not returned when the communication was made.

In the fourth volume of the Academy's Memoirs are inserted an ample set of interesting and judicious instructions, drawn up by the Academy for the use of M. Gaymard, the surgeon of an expedition sent into the North Seas in search of the Corvette la Lilloise.

PHYSIOLOGY.

ON THE VOLUNTARY AND INSTINCTIVE ACTIONS OF LIVING BEINGS.

BY WILLIAM B. CARPENTER, ESQ. M.R.C.S. ETC.

This paper, the substance of which was originally read to the Royal Medical Society of Edinburgh, of which society Mr. Carpenter was the senior president, is of great interest both in a physiological and psychological point of view, and proves the author's powers in the investigation of such subjects, to be of a very superior order. We expect yet greater things from his acute, well-disciplined and well-directed mind. We can only, in this place, find room for the general summary of the positions advanced in the memoir, to which we refer the reader.

"1. Many living tissues possess the property of contractility upon the application of a stimulus.

"2. This contractility is especially manifested by the irritable parts of certain vegetables; and results in all these cases from the action of a stimulus either *directly* applied or conveyed through the circulating system.

"3. This contractility is also especially manifested by the muscular fibre of animals, and may in them be called into play not only by the stimuli which act upon plants, but by another of a peculiar nature, commonly denominated nervous influence.

"4. Whatever actions (whether consisting of visible motions or not) are performed by the tissues of plants, may be regarded as the direct respondence of their organism to external stimuli, and as solely connected with their organic life.

"5. All the actions (whether consisting of visible motions or not) essential to the organic life of animals, are in like manner produced by the *immediate* action of external stimuli;* and being entirely involuntary, may be called *organic instincts*. Under this head are included (besides many less apparent changes,) the motions of the heart and alimentary canal.

"6. The first office of the nervous system is to convey to a distant part the *impressions* made upon it, and to produce (by its *stimulation* of the contractile tissues) motions necessarily connected with them. These actions, being purely instinctive and involuntary, may be called *excito-motor instincts*.

"7. All that is required for these manifestations is the completeness of the circle of concentric and excentric nerves. In vertebrated animals, the cerebro-spinal axis and nerves proceeding from it are of course solely concerned in this function.

"8. In the lowest animals possessing a simple nervous system, these actions make up the greatest part of the sum of the life of the individual; and in the higher, they are immediately connected with the supply of the organic instincts.

"9. Where a more complicated nervous system exists, the impressions give rise to mental changes termed *sensations*, the seat of which is some part of the cerebral mass in the vertebrata, and probably the ganglia connected with the nerves of sense in the invertebrata. With various sensations, certain involuntary motions are instinctively associated; but as *sensation*, a mental change in the sensorium, cannot immediately give rise to *stimulation*, an organic change at the extremities of the nerves, a *motive action* must be propagated from the sensorium along the nervous conductors, and this cannot result from an external impression wherever sensation does not exist. The instinctive actions thus resulting are still purely involuntary, although they may be controlled in man by the higher power of the will. Certain habitual actions may come to take place nearly in the same circle, which may be called that of *sensori-motor instincts*.

"10. Voluntary actions require *perceptions* in addition to sensations and impressions. Perceptions give rise to mental processes terminating in *volition*, which produces motive action and stimulation. Volition is of course confined to the brain, and probably to the cerebral lobes.

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* The term *external* is here employed in the usual metaphysical sense, implying something distinct from *mental* action. The stimulus may originate in the corporeal organism itself.

"11. No distinct division of the spinal marrow is necessary for the performance of the excito-motor, or sensori-motor instinctive actions. The same nervous matter may act as a conductor either to the influence of the will (motive action) or to that of a simple impression (stimulation.)

"12. As all the nerves of sensation terminate ultimately in the cerebro-spinal axis, (the spinal cord and its prolongations as far the *crura cerebri* and *corpora quadrigemina*) and all the nerves of motion arise from it, it follows that all motions must be the result of some stimulus applied to this system; and this stimulus may either be given by an impression from without, or by a mental change within (or in the brain above.) If we regard the cineritious matter of the brain as a seat of consciousness, sensation, the intellectual powers, and volition, the medullary portion of the hemispheric ganglia being merely a conductor, (a position which I do not wish to be understood as advocating,) it necessarily follows, from the positions previously taken, that the sensory and motor tracts in the brain simply convey *upwards* to the cineritious matter, the influence of the impression existing in the cerebro-spinal axis, and *downwards* the motive action resulting either immediately from sensation, or from volition."—*Edinburgh Journal.*

ON UNITY OF FUNCTION IN ORGANISED BEINGS.

BY W. B. CARPENTER, ESQ.

This is another paper by the same author, and possesses the same ingenious and philosophical character. As it has less relation to human physiology, we must content ourselves with a mere reference to it: but its perusal will gratify all those who have been accustomed to regard physiology generally, as it relates to animated beings. The chief object of the author in this paper is to apply to *function* one of the laws propounded by Von Bar with regard to structure, namely, that, "a special function arises only out of one more general, and this by a gradual change;" to which Mr. Carpenter adds a second, namely, that "in all cases where the different functions are highly specialized, the general structure retains, more or less, the primitive community of function which originally characterized it." "The time has long gone by (says Mr. C.) when similarity in function and external form were considered sufficient for the recognition of analogies between organs; anatomists are now aware of the necessity of resting their comparison upon the elementary structure of organs, their connexions with each other, and the changes they undergo during the progress of their development. Neither of these grounds of judgment can be safely trusted to alone; whilst, combined with each other, they furnish a body of evidence which is quite irresistible."—*Edinburgh Philosophical Journal.*

PATHOLOGY AND THERAPEUTICS.

ON ST. VITUS'S DANCE.

BY DR. STIEBEL.

Nearly one hundred cases of this disease have come under the notice of Dr. Stiebel; and in not one of these, he says, was wanting the evidence of an irritation of the spinal nerves. Few of the patients, during the course of the disease, have not had pain in some one of the vertebræ, and all, either in consequence of the treatment employed or spontaneously, have recovered. Dr. Stiebel believes that the cause of this disease is an irritation of the motor nerves of the spinal marrow or of the medulla oblongata, depending on inflammation or turgescence. Chorea almost always originates during the development of the spine and of the spinal marrow; generally between the seventh and seventeenth years, but occasionally at later periods of life.

The following appears to be the anatomical explanation of the disease:—The spinal marrow, and the origins of its nerves, lie within a bony cavity. If, during their development, there occurs a want of relation between the bones and the nervous system, so that the cavity does not correspond to the increasing marrow, the nervous origins become subject to an irritation as of a foreign body. This disproportion may be the effect of swelling of the spine, without previous change in the nerves, as well as of turgescence of the membranes of the nerves and the nerves themselves, the spine remaining unaltered; but the first is of most frequent occurrence. The spasms generally cease during sleep, although the irritation continues. The chorea may be limited to one side of the body, or to parts of less extent, according to the situation of the irritation. It is liable also to change its place, to become general after having been but partial, and *vice versâ*. It may also alternate with paralysis, which is as little dangerous as the original disease. The change of locality of the disease is not sudden, as in hysteric spasms, but at different periods of the progress of development, each of which is of a certain duration.

Partial chorea of individual motor nerves of the organs of sense constitutes some of the most remarkable forms of the disease; such, for instance, as a constant twitching of the eyelids, distortion of the eyes, abnormal motions of the tongue, and almost uninterrupted sneezing. A very common form of partial chorea consists in the constant and unavoidable utterance of inarticulate sounds. As all the motor nerves of the organ of voice are not affected, the patient can still speak, but with effort and stammering, the inarticulate sounds being afterwards made more uninterruptedly and with greater violence. This utterance of sounds frequently continues for weeks, only interrupted during sleep; a long-continued aphonia frequently follows, or a shooting pain on one or the other side of the breast, or asthma. Palpitation of the heart accompanies chorea, both partial and general. In examining individuals suffering from either local or general chorea, it will be very rare not to find tenderness and swelling of some vertebral bone; but such an examination must be repeated, as the sensibility is frequently not discoverable until the disease has lasted for some time. In all the cases of chorea which Dr. Stiebel has examined, he has discovered no other cause than that above mentioned, although he does not deny the possibility of the existence of other causes;—e. g. metastasis of rheumatic inflammation, injuries of the spine, &c. There is doubtless a hereditary disposition to chorea, it having been known to affect whole families. It is particularly frequent among the Jews. Dr. S. has not himself had any opportunity of examining the bodies of individuals who have died of chorea; but, in all the cases which he has read, changes in the spinal marrow, its membranes, or in the spine, are mentioned.

The treatment of chorea is simple. Leeches, followed by mercurial inunctions, and then by more active exutories, are indicated when a painful vertebra is found to exist. If no tender point is at first discoverable, leeches and blisters may be applied along the spine. Calomel is generally given internally as a derivative. If the disease is not thus relieved, repeated cold douche-baths on the spine are almost always of advantage. As a general rule, the disease is cured between the fourteenth and the twenty-first day by this treatment; but, should not this happen, the disease may be left to nature, which almost always put an end to it in the progress of development. At the same time, however, it is necessary to guard against the occurrence of any spinal deviations, and irritant frictions may be applied to the spine. Preparations of iron have sometimes appeared to be of use. The description of the disease which is here given will suffice to account for the credit which such numerous remedies have acquired in the cure of chorea; their use having been coincident with the natural cure. It is not intended to deny that there may be a specific remedy, but only that we at present know not what it is.—*Wochenschrift für die gesammte Heilkunde.* No. I.

ON THE NATURE AND TREATMENT OF ITCH.

The following articles, extracted from different Journals, we have placed together for greater facility of comparison and contrast. The subject is trite, but not the less important on that account.—*Brit. and For. Med. Rev.*

I. *On the Influence of the Human Acarus in the Production of Itch.*

BY M. ALBIN GRAS.

Several eminent physicians, and among others M. Rayer, (in the last edition of his Treatise on Cutaneous Diseases,) having doubted if the acarus be really the cause of the itch, M. Gras proposes, in the present memoir, to answer the three following questions:

1st. Is the acarus always observed in this disease, and never apart from it?

M. G. has never found the insect elsewhere than in cases of itch. On examining the hands only of those who *first* presented themselves for treatment, the insect was observed in nine out of ten cases: the exceptional instances he notices might have presented it in other parts of the body, or the patients might have been under treatment furtively.

2d. Is the acarus the agent of the contagion of itch?

To resolve this question, he states that, independently of successful inoculation on his own person, he placed some acari between the fingers of a fellow student, who was fairly infected, although all contact with other patients had been avoided; and, of two young women who had the acari placed in the armpit, one (and one only) took the disease, and communicated it to her father and mother. On the other hand, his own experiments, and those of MM. Mouronval and Lugol, in 1821, have proved the futility of inoculation from the vesicles of the itch. As a further confirmation, he adds that, after two or three applications of sulphur ointment, all the acari discovered were dead, although the eruption, and even the formation of new vesicles, continued. Daily experience attests that the disease ceases to be contagious after two or three days' treatment. The acarus appears to possess a complicated organization: it lays eggs; and the copulation of two allied species, the acarus of the sheep and that of the horse, has been observed; it is, therefore, too perfect to be the produce of spontaneous generation, even if this theory were admissible. Were the acarus not the cause of the contagion, the itch should be found without it, a fact at least very rare; or the acarus should exist without the itch, which has not yet been noticed.

3d Question. In what way does the insect produce the itch; by direct and mechanical irritation, or by means of a peculiar virus?

On examining the vesicles of the hand, some few are observed to be situated at the origin or by the side of the little grooves hollowed by the insect, but by far the greater number exhibit no trace of its presence: on the contrary, fifty or more insects were sometimes discovered on the hands when there were few vesicles, and hardly any pruritus. These animals are with certainty destroyed by a few inunctions, but fresh crops of distinct and acuminated vesicles will often continue to arise for a fortnight or more. For these and other reasons, M. Gras considers that the acarus exerts upon the skin a physiological and vital action, by virtue of a particular virus; using the word virus as synonymous with the phrase, "unknown agent, producing great effects by a trifling visible action." He compares the *modus operandi* to that of certain insects, which, placing their little egg upon the oak or other vegetable, develop, each after its kind, numerous varieties of excrescences.—*Journal des Connaissances Medicales.*

II. *On the Nature and Treatment of Itch.* By Dr. Pentzlin, of Wismar.

The cause of itch still remains involved in some obscurity. The modern French school considers the Acarus scabiei as the sole cause of its propagation, and refuses to allow contagious properties to the contents of the vesicles or pustules. Dr. Pentzlin, of Wismar, is disposed to consider this view of the subject as erroneous, and he regards the insect as a mere parasite, which owes its existence to "generatio æquivoca." Experiments have been adduced to prove that the disease can be communicated by means of the insect only; but Dr. Pentzlin, in such cases, ascribes the contagious property, not to the insect itself, but to adhering virus.

It has been shown by statistical papers, that about thirty-four days are required for the cure of itch in the hospital of the Charité at Berlin; in the hospital of Wismar four, or at most seven, days suffice. In the latter the use of sulphur has been renounced, and an ointment is now adopted, composed of one part of tar and two parts of salt butter, to which, when melted, one part of common potashes is added. The patient is stripped and put to bed, and frictions with the above ointment, repeated every twenty-four hours, are applied over the whole body. Four, or at most seven, applications suffice, and the treatment is finished by a warm bath.—*Grafe and Walther's Journal.* Vol. xxiv.

III. *Comparison of the Results from the homœopathic and the common Treatment of the Itch.* By Dr. Klein, Army Surgeon at Stuttgardt.

By command of the government, twenty-eight recruits with the itch were treated, fourteen of them by an homœopathist, Dr. Steinestel, and fourteen in the usual way, by Dr. Klein. The homœopathist, who had at his disposition all the remedies which his system required, gave to his patients, according to his own account, infinitesimal doses of calcaria, sulphur, and the scabietic matter itself; ordered them to be washed with soap and warm water daily; to take a bath frequently, and afterwards, as summer came on, to bathe every day in the Neckar, having rubbed in, previously, all over the body, a portion of sulphurous soap. The results of this treatment, which, whether it was purely homœopathic or not we leave to our readers to decide, were as follows:

6 men were dismissed cured in 10 weeks.
4 do. — — 13 do.
1 do. — — 19 do.;

of these, two suffered a relapse, or were newly infected in a few days, though the homœopathist had previously denied that either of these events could occur. After having been under treatment for twenty weeks, the remaining three were neither cured nor improved. At this period, the commander of the regiment interdicted all further experiments.

Of the patients intrusted to the care of Dr. Klein, twelve were dismissed cured in fifteen days; one had to be treated fourteen days longer for a subsequent eruption; and the last, with purulent itch, was cured in seven weeks. They were all treated with kali soap, according to Graff's method, which, during the last two and a half years, has been proved, in the garrison hospital at Stuttgardt, to be safer and more rapidly productive of a good effect than any other. This soap (which is, properly speaking, an improvement on Graff's,) is composed of kali and train-oil, and is not, like his, of such a stimulating nature as frequently to produce a fresh eruption, after having cured the original complaint.—*Wirtemberg Corrispondenz-blatt.* Band iv.

IV. *On Solutions of Caustic in the Treatment of Scabies, in all its forms.* By M. Malapert. Report of MM. Alibert, Biett, and Bousquet.

M. Malapert regards the want of cleanliness of the common method employed in the treatment of scabies, and its frequent relapse after such treatment, as strong reasons for the employment of other means, and he has had recourse to the old method of the employment of caustics in this eruption. He says that "any dissolved caustic, which, without altering the healthy portion of the skin, can act directly upon the disease, is capable of curing scabies." The best solvent is water. The number of applications which should be employed must depend on the sensibility of the individual. The comparative value of caustics is stated in the following list:—Caustic potass, soda, corrosive sublimate, sulphuric acid, subcarbonate of potass. The effect of sulphuric acid is most rapid, twelve days being the average time required for cure; but, of nineteen cases, there were four relapses. The corrosive sublimate is the quickest and most certain in its effects; it cures the disease in fifteen days; the proportions employed are, twelve grains to one ounce of water. Potass and soda require another day to affect a cure. The subcarbonate of potass is the slowest in its effects.—*Bulletin de l'Academie Royale de Medecine*, No. 1.

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SURGERY.

SUCCESSFUL CASE OF AMPUTATION AT THE HIP-JOINT.

A countrywoman, 25 years of age, was admitted in August, 1832, into the surgical hospital at Erlangen. From the age of 12 to 15 years she had had a fistulous abscess, situated immediately above the internal condyle of the left thigh. When this abscess healed, her health was remarkably good, and continued so until about a twelvemonth previous to her admission into the hospital. At that time the whole of the left lower extremity became swollen and painful. Two abscesses formed above the condyles, and, when they broke, discharged a large quantity of pus. The patient became hectic, amputation was proposed, and she at length submitted to it. The knee was permanently bent; it was much enlarged, and extremely tender on pressure.

On introducing a probe along the fistulæ, the bone was found to be carious and necrosed. The limb was amputated in the upper third of its extent. On sawing through the bone, it was discovered that it was unsound. On detaching the muscles from it for two or three inches, M. Jaeger discovered that the trochanters were affected with caries. He now determined to disarticulate the head of the femur. This was done without much difficulty.—The acetabulum fortunately was quite healthy. Very little blood was lost in this second operation. The quantity of soft parts was much greater than was necessary to form a good stump; but M. Jaeger was unwilling to subject his patient to more suffering, as already she was in a weak and fainting state. He therefore united the wound with a few stitches, leaving its lower angle free, to permit the issue of any discharges. The stump, enveloped in linen wet with cold lotion, was laid upon a cushion of bran, and no bandages were applied.

On the third day after the operation, three of the stitches and also the strips of plaster were removed, in consequence of the lips of the wound having become somewhat swollen and painful, and dressings of simple cerate were applied and retained in their place by a few turns of a roller. Light cordials and nourishing broth were allowed, in small quantities at a time, as the vital powers were rather low and apt to flag. The upper angle of the wound having assumed somewhat of a livid hue, it was frequently bathed with aromatic fomentations, sharpened a little with pyroligneous acid. Under the application of these, continued for ten or twelve days, this disagreeable appearance gradually subsided, and at the same time the character of the purulent discharge was much improved.

By the end of the fourth week the wound was nearly cicatrised; the general health of the patient improved rapidly; and menstruation, which had ceased for upwards of a twelvemonth, returned on the seventh week after the operation.

The state of the amputated limb was as follows:—

The subcutaneous cellular tissue around the knee was thickened to a very considerable extent. All the parts of the joint were carious; the femur was thickened and uneven; and on its posterior surface were three openings, through which might be felt the sequestrous bone. On examining the bone, where it was sawn through at first, it was found to be internally carious; and this unhealthy state might be traced upwards as high as the two trochanters. The head and neck of the femur were internally soft, and very vascular.

Professor Jaeger, in discoursing on the preceding case, attributed its successful termination in part to the simple manner in which the bone was disarticulated. He is inclined to recommend surgeons to consider more attentively than they have done hitherto the plan which he followed—viz., to perform the circular operation first, and then to extirpate the head of the bone from its socket.

The state of the patient's health too was favourable to the cure. Naturally of a sound constitution, there was precisely that degree of feebleness, which keeps down inflammatory reaction, and which thus is decidedly favourable to recovery after great surgical operations. The simple mode of dressing the wound at first with cold fomentations, and the abstaining from all compression with bandages and so forth, is strongly recommended.—*Schmidt's Jahrbucher*, from *Med.-Chir. Rev.*

RADICAL CURE OF VARICOSE VEINS AND OF HERNIÆ BY ACUPUNCTURATION.

M. Bonnet, chief surgeon of the Hôtel-Dieu at Lyons, informs us that he has treated eleven cases of varicose veins by introducing pins through their cavities, and allowing them to remain there for some time. Nine of these cases were cured. He has applied the same treatment to herniary sacs; and the following is a short account of his method, and of the success which he has obtained from it. He passes three or four pins through the herniary coverings close to the inguinal ring, and in order that they may exert a certain degree of compression, as well as of irritation, on the sac, he twists upwards their points and heads, so as to give them a circular direction.

Caution is necessary not to injure the spermatic cord. The inflammation and pain commenced usually on the third or fourth day after the operation, and the pins were removed a few days afterwards. M. Bonnet has treated four cases of inguinal herniæ by acupuncturation. In two of these, the herniæ were small, and three weeks sufficed for the cure. The third was more troublesome. It occurred in an old man 67 years of age; and in him the hernia descended to the bottom of the scrotum, and was with difficulty kept up by a truss. Six needles were used. After a month's treatment, this patient could walk about, without any tendency of the viscera to descend. In the fourth case, the hernia was of thirty years' standing; no truss could keep it up; the inguinal aperture was large enough to admit "l'introduction de cinq doigts reunis," and the tumour descended a considerable way down the thigh. Five weeks were necessary for the cure. We are assured that all these patients could cough and walk about freely without any escape of the bowels, and that the inguinal ring was so plugged up, that it could no longer be distinctly recognized.—*Bulletin de Therapeutique*, from *Med. Chir. Rev.*

ON THE POSSIBILITY OF TRANSPLANTING THE CORNEA FOR BLINDNESS FROM DISEASE OF THAT STRUCTURE.

BY DR. BIGGER.*

The blindness from what is deemed incurable staphyloma is of course hopeless, unless some means of substituting a transparent for the opaque front of the eye can be devised.

Removal of that opaque part, and transplantation of a healthy cornea to its site have been thought of by several surgeons in Germany, and both essays and experiments have been resorted to with the view of recommending it. But on the whole, the evidence and authority both leaned against it, when Dr. Bigger, of Dublin, reopened the inquiry, and prosecuted fresh and more extended experiments for its solution. The results have been published in our Irish contemporary, from whose pages we shall extract enough to put our readers in possession of Dr. Bigger's conclusions.

It is stated that Dr. Bigger has succeeded in rendering the removal of the cornea a safe operation, and easily practicable by a steady and dexterous hand. The following is his method of removing and of transplanting it.

Having fixed with a ligature the upper eyelid of the animal from which the cornea is to be taken, he introduces Beer's cataract knife (holding it horizontally, and at first directing it a little backwards, so as to insure its passing through all the layers of the cornea), with its edge turned upwards, into that part of the cornea situated about a line or more from its most inferior junction with the sclerotic, and about the same distance external to the mesial line of the eye. He then pushes on the knife for the space of one or two lines, inclining the handle, so that the point of the knife may be brought forward, and caused to pierce the cornea again, at a distance as small as possible from the point of entrance. The knife should now be pushed on, when it will make as large a section as may be required, which being turned down, is to be cut off with a pair of scissors. The eyelids are then to be closed, to prevent the escape of the crystalline lens and vitreous humour. The excised cornea should be placed on a slip of cork, and the curved needles, carrying very fine ligatures, (two, three, or four in number,) should be passed through the cornea and the piece of cork. The latter, which has been chiefly used as a support to enable the operator to pass the needles through the tough layers of the cornea, should then be broken off, and the cut surfaces of the cornea should be kept moistened with some of the secretion from the eye. The surgeon then proceeds to perform the same operation on the eye to which the cornea is intended to be transplanted. Having done this, and closed the lids for a few moments, until the spasmodic action of the muscles of the eye diminishes, the operator proceeds to adapt the cornea to its new situation, and for this purpose, inserts the point of his needle carefully between the margin of the now prolapsed iris and the remains of the cornea, and pressing externally with the nail of the other forefinger against the point of the needle, so as to make it pass through the cornea without dragging or injuring the eye, draws out the needle. To accomplish the latter object, Dr. Bigger was often obliged to use a small forceps, and in this case, the thumb and finger nails of the other hand must be pressed closely and firmly against the cornea on either side of the needle, to obviate any injurious disturbance or dragging of the eye. The ligatures should then be carefully tied, and the ends cut off. Dr. Bigger has found two ligatures to answer the purpose quite as well as four. Finally, the operator clears away any lymph or blood which may have collected on the eye, and concludes the operation by smearing the eyelids with a little spermaceti ointment.

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* Dublin Journal, July.

The unsteadiness of animals is a serious difficulty attendant on the operation. The great danger is—injury to the iris. Dr. Bigger performed many experiments previously to his return to Dublin (he had been abroad). He then recommenced them, and instituted eighteen more. Of the earlier ones we need take no notice—the latter are deserving of more attention.

The subjects of the first and last we quote from our contemporary. Two rabbits were presented before an evening meeting of the King and Queen's College of Physicians, on the 18th of May last. They were examined with great interest by the members and visitors present, and the degree of vision which one of them evidently possessed, reflects the highest credit on the ingenuity, patience, and manual dexterity of the scientific operator. The results of these eighteen experiments were: in ten, the iris was injured; in eleven, the crystalline lens escaped; in seventeen, union took place between the implanted corneæ and the adjacent surfaces in forty-eight hours, so as to admit of the withdrawal of the ligatures, which are always a great source of irritation; in four, three ligatures were employed; in fourteen, only two, and with equally favourable results; in twelve, adhesion of the iris to some part of the cicatrix ensued; in one, sloughing of the cornea and destruction of the eye took place, an event which arose from the cornea being kept for half an hour without applying it, with the view of ascertaining how long it would be likely to retain a sufficient degree of vitality to enable it to unite. Dr. Bigger is inclined to think, that, generally speaking, a delay of this space of time would be prejudicial to the success of the operation, and that it may be always avoided by common dexterity on the part of the operator. Of the whole eighteen experimented on, sixteen recovered imperfect vision.

The difficulty of performing the experiment in such a way as to afford a chance of preserving the transparency of the implanted cornea, was a source of much disappointment to Dr. Bigger, and for a long period he could not succeed in devising any means for this purpose, until after his eighth experiment at home, when he discovered that much benefit might be derived from the local application of bichloride of mercury. A weak solution of this salt, gradually increased to the extent of three grains to the ounce of distilled water, and dropped into the eye three or four times a day, after the cornea had become adherent, was found by him to exercise an almost specific action in diminishing the opacity of the implanted cornea. He had made several trials with iodine and the nitrate of silver, but found that although they improved the appearance of the cicatrix, they did not appear to act upon the milky state of the cornea. The only caution necessary to be observed in using the corrosive sublimate is, to begin with a weak solution of it, and not to use it until the implanted cornea is perfectly united to its new connexions.

Of the two rabbits exhibited to the meeting, one, the first, had been left to Nature—the second had been treated with the bichloride of mercury. Nine months had elapsed since the operation in the instance of the first—ten weeks in that of the second. The advantages were immensely on the side of the latter, in which the power of vision seemed distinct, and nothing indicated the transplantation of the cornea but a slight line in the situation of the cicatrix, and some degree of conicality in the cornea itself.

There are a few desultory observations made in reference to the operation, which it is as well to notice.

a. "One experiment accidentally convinced Dr. Bigger of the advantage derived from removing no more of the diseased cornea than is absolutely necessary, as the sound portion which remains may enact a very useful and important part in the reparative process. In this case, the iris was attached to the inferior angle of the cicatrix. Dr. Bigger has observed this in many of his experiments, and attributes it to the predominance of inflammation in the inferior part of the eye, a fact which he has noticed on numerous occasions."

b. "With reference to the applicability of the operation to the human species, Dr. Bigger observed, that he thought that in man the chances of success would be greater, at least so far as steadiness during the operation, avoidance of injury, and other obvious circumstances might contribute to that desirable end. With respect to the animal from which the cornea would be taken in the case of the human subject, Dr. Bigger has not yet decided, and invites the attention of comparative anatomists to this point of the investigation. The animal whose cornea he has found to make the nearest approach to that of man is the pig; it is, however, much thicker and coarser in its texture. In a spirit of just and humane feeling, he deprecates the removal of the cornea from the human eye, even when permitted for gain by the possessor; but thinks that a person afflicted with incurable amaurosis might be prevailed on to part with his pellucid cornea, which might be replaced by one taken from some of the inferior animals. He thinks, however, that the operation should not be sanctioned under any circumstances, when the patient enjoys even a tolerable degree of vision with the other eye, at least until our knowledge has been increased by further experiments and observations. He is of opinion that cases of blindness caused by small-pox, ulcers on the cornea, and ophthalmia not affecting the deeper structures of the eye, would be the most favourable for operation."

Such are the main portions of this, not uninteresting paper. Our ophthalmic brethren will judge for themselves. We must say that we do not anticipate much from the operation in the human subject. It is one thing to remove the cornea from the sound eye of an animal, and another to remove it from a staphylomatous one. This will augment the difficulties of the operation in the human subject.

Its dangers are not inconsiderable. They would appear to be—adhesions of the iris to the cicatrix—injury of the iris—escape of the crystalline lens—opacity of the transplanted cornea—deep-seated inflammation of the eye—sloughing of the transplanted cornea.

When we sum up the many difficulties and the considerable dangers, we fear we must not reasonably anticipate from the operation any more than the *possibility* of some benefit in a rare and lucky case. But it will give us sincere pleasure if our own unfavourable anticipations shall turn out to be unfounded. Whether the operation succeeds or not there can be but an unanimous opinion with respect to Dr. Bigger. He deserves the highest praise for his philanthropical zeal.—*Med.-Chir. Rev.*

REDUCTION OF AN OLD DISLOCATION OF THE SHOULDER.

DEATH THE SAME DAY—APPEARANCES OF THE JOINT ON DISSECTION—REMARKS ON M. LISFRANC'S CHARACTER AS A SURGEON.

The patient was a robust plethoric man, 40 years of age. The dislocation, upwards and inwards, had lasted for four months. He was bled previous to the attempts at reduction, and this was effected without the aid of pulleys by several assistants, under the direction of M. Lisfranc, who, while the extension was making, lifted up the head of the bone by means of a towel passed under the patient's arm and over his own neck. Three hours after the reduction, the patient suddenly died from an apoplectic attack.

On the dissection of the joint, an ecchymosis was found to extend from the lower edge of the pectoralis major muscle to the middle of the neck, and from the sternal extremity of the clavicle to the subscapular and infraspinal fossæ. The effused blood permeated all the tissues from the skin to the subjacent pleura. The subclavian and axillary artery and vein, and the plexus of nerves, were not injured. When the deltoid and pectoralis muscles were lifted up, the head of the bone was found under the acromio-coracoid arch. It evidently was more prominent than in the natural state of the parts, and this projection seemed to be caused by something interposed between the round head of the humerus and the glenoid cavity. It was enveloped in a dense fibrous tissue, which had all the appearance of the ordinary capsular ligament.

On continuing the dissection, it was evident that this enveloping tissue was a new formation, and that the puckered and altered remains of the original capsule were interposed between the head of the bone and the glenoid cavity of the scapula.

The heart was found hypertrophied, and the vessels of the brain and of its membranes excessively gorged with blood, although no traces of sanguineous effusion were discovered.—*La Lançette Française.*

We do not charge M. Lisfranc with any blame for the unfortunate issue of the preceding case—far from it. The same accident might have occurred in the practice of a much more cautious surgeon than M. Lisfranc is. But there has been an accusation of wilful misrepresentation of truth lately brought against him by one of his pupils; and this we feel ourselves bound to notice. In the course of last year, M. Lisfranc communicated to the Academy of Medicine a list of 84 cases, in which he alleged that he had successfully amputated the cervix uteri. This, indeed, is a most startling and most unexpected announcement; and one which, even in the present day of medical wonders, makes a large demand upon our credulity. But what will our readers say, when they are informed that Dr. Pauly, who tells us that he was "chargé de rechercher les materiaux" of the memoir presented by his former master to the Academy, has assured the public in his recent work, "Maladies de l'Uterus," that the statements of M. Lisfranc are not true; that, of all surgical operations, the amputation of the neck of the uterus is one of the most murderous (meurtrieres); and that every case, in which it was performed, "lui offrait une victime," the poor patients, when dismissed from the hospital, being told by M. Lisfranc: "Allez, vous etes gueries; vos douleurs se desesperant à la longue."

We admit that the prevailing tone of Dr. Pauly's work indicates a personal hostility to M. Lisfranc; and we are bound to await the latter's reply. But we must confess that the perusal of the lectures "du grand chirurgien de l'Hôpital de la Pitié" has not given us a favourable impression of his practical talents. He is rash—and rashness is one of the very worst attributes of a medical man.

In a late number of the Gazette Medicale, we read the history of a case, where a woman died of violent metritis, which supervened on the very same day on which M. Lisfranc had made a tedious and painful examination of the uterus for suspected polypus.

His vaunted discovery of the great utility of muriates of lime and barytes, in white swellings of the joints, is not likely to obtain much credit among British surgeons.—*Med. Chir. Rev.*

CURIOUS CASE OF SIMULTANEOUS DISLOCATION OF BOTH THIGHS.

A sailor was sitting astride a plank, when a wave suddenly forced him up against a cross beam, which struck his back violently, while the plank was still between his legs. The poor fellow was lying on his back, when Dr. Sinogowitz was summoned to his assistance. Both limbs were quite motionless, and evidently much deformed from their natural figure. The thighs were separated the one from the other, and could not be approximated; the trochanters were much lower and less prominent than usual, and the muscles of the hips over them were in a state of extreme tension. The body was bent immovably forwards and downwards upon the thighs; the knees were moderately flexed, and the toes were not turned either inwards or outwards. The diagnosis, therefore, was that the heads of both of the thigh bones were dislocated downwards and inwards. The reduction was effected in the following manner:—The pelvis being secured by two assistants, the surgeon took his place between the limbs of the patient, and having put a towel round the right thigh above the knee, he passed the noose of it over his own neck. Extension was then made by means of a towel made fast above the ancle, and inclined a little to the left side, and while this was steadily continued, Dr. S. lifted the head of the bone, and directed it upwards and somewhat outwards, by raising and stretching out his head with all his power. It slipped into the socket without any noise. The left limb was then reduced in nearly a similar manner. The mobility of the limbs was almost immediately restored, at least in the horizontal position; but several months elapsed before the patient could walk with any degree of ease. The tediousness of the recovery was owing in a very great measure to the severe injury of the lumbar vertebræ, which he sustained at the time of the accident. For three weeks, the sphincters of the bladder and rectum were quite paralysed.—*Preussische Medicin. Zeitung.*, from *Med. Chir. Rev.*

VARIETY OF CLUB-FOOT TREATED BY THE DIVISION OF THE TENDO-ACHILLIS.

A man, 46 years of age, had been affected from his childhood with that variety of club-foot which has been denominated "horse-foot," (pied equin,) and which consists in the person walking on the point of the foot.

The infirmity was not congenital, but had been the result of a wound of the heel from the bite of a dog, when the patient was six years of age. From inattention the patient had ever since that time rested on the point of the affected foot in walking, and the consequence of this proved to be a permanent and unyielding extension, the heel being drawn up by the contraction of the tendo-Achillis. The ancle-joint was quite sound; the calf of the leg was somewhat smaller than that of the opposite limb.

The remarkable success obtained by M. Stromeyer, of Hanover, and by M. Duval, at Paris, from dividing the tendo-Achillis in such cases, induced the attendant surgeon to propose the operation in the present instance. M. Roux was consulted, and approved of the practice suggested. A long straight bistoury was passed behind the tendon, at about six finger-breadths above the external malleolus, in a direction parallel to that of the tendon. The blade of the instrument shaved, as it were, the posterior face of the fibrous bundle; but its point was not made to penetrate through the skin of the opposite (the inner) side. This being removed, a probe-pointed bistoury, with a very convex blade, was introduced along the wound, so as to divide across all the fibres of the tendo-Achillis. The foot could then be brought to its proper position, the heel being drawn down into a line with the toes; but it was thought advisable to permit the wound to heal, and a deposition of "tissue inodulaire" to take place between the divided ends of the tendon, before the permanent extension was resorted to. The instrument employed was somewhat like the boot of J. L. Petit, only that it acted in an opposite direction—of keeping the foot constantly bent upon the leg. It consisted of a padded and laced shoe, to which were attached two lateral splints or rods, which extended up to the knee, where they were secured in their places by leather straps. A leather strap extended from the point of the shoe to a circular piece of metal, which passed round, and was made fast to the splints about the middle of the leg. By shortening and lengthening this strap, the toes could be readily elevated or depressed.

We are told that the patient was very restless and intractable. However, by the fifteenth day after the operation (the date of the report), the foot had resumed "une grande partie de ses fonctions normales."—*Gazette des Hôpitaux.*

The practice of reporting cases, and this too as being quite successful, before the result is known, is very common among our French brethren. On the present occasion, the reporter "engage les chirurgiens à imiter la pratique qu'il vient de decrire," although, in the paragraph immediately preceding, he had expressed his doubts as to the ultimate success of the case.

The following abstract of four cases, which we find narrated by Stromeyer himself in a late number of Rust's Magazine, deserves notice. The first was that of a boy, seven years old, who had been born club-footed in both limbs. The right foot was most deformed. The tendo-Achillis was divided. The wound healed speedily by the first intention; but the extension was not commenced till eight days after the operation. Whether the connecting cellular tissue had by this time become too unyielding to permit the foot being brought into a natural position, or there was some other unfavourable condition present, we are not informed; but it appears that the patient was not at all benefited by the operation which had been performed, and the parents would not consent to a second one being performed, as proposed by Stromeyer.

The second case was more successful. The disease was not congenital, but had come on, without any very evident cause, when the boy, now 13 years of age, was in his fourth year. The twisting of the foot was even worse than in the preceding case; and in addition to the general deformity, the big toe was permanently contracted downwards and inwards, in consequence apparently of the flexion of the tendon of the flexor longus pollicis. Dr. Stromeyer was of opinion, that before attempting to remedy the greater evil, it was advisable to rectify the deformity of the toe. The tendon of the flexor longus was therefore divided, and three days afterwards the toe was extended, and kept in that position for a week. The more important operation was then performed. Extension was commenced on the fifth day. In the course of ten days, the foot had been brought to an angle of 70° with the leg. Four weeks after the operation, the extension-apparatus was exchanged for the mechanical boot which has been contrived by Stromeyer for the purpose, and the patient allowed to walk out. Half a year afterwards, he could move about with the greatest ease, and with the exception of a slight turning-in of the point, the foot had regained its normal shape and mobility.

In the third case, that of a boy 9 years old, the disease was congenital. The toes and the metatarsus of the right foot were bent strongly downwards, so that the dorsum of the foot formed quite a convex line with the leg, and the great toe was drawn upwards in a strange manner towards the foot, so that the only point of support, when the patient stood or walked, was the metatarsal joint of this toe. The tendo-Achillis was divided; and on the fifth day afterwards the extension-apparatus was put on.

As the point of the foot was still drawn considerably inwards by the contraction of the tendon of the flexor longus pollicis, this was divided, and extension afterwards kept up.

In about ten weeks after the date of the first operation, the form and mobility of the foot left nothing to wish for; and the boy could move about with the greatest facility.

The fourth case occurred in a youth 19 years of age. The foot was turned inwards, so that the point of support in standing was on the metatarsal bone of the small toe. The result of the operation and of the subsequent treatment was so successful, that the deformity was quite removed (das entstellende uebel war ganz gehoben).—*Med. Chir. Rev.*

CLINICAL LECTURE ON FRACTURE OF THE SKULL,

With Depression and Injury of the Dura Mater and the Brain; and on Cancer of the Lips.

By Wm. Lawrence, Esq. F.R.S. &c.

[Delivered at St. Bartholomew's Hospital.]

The case to which I now direct your attention is a severe injury of the head—a comminuted fracture of the cranium, with bone beaten in on the brain, and portions of the latter forced out through the wound. An important practical question arises in the treatment of such injuries at two periods of their progress, namely, whether the injured bone should be exposed and elevated, or removed, at the time of the accident; and whether, if this has not been done, the measure ought to be resorted to at a subsequent period, if serious symptoms, such as convulsions and paralysis, should supervene.

Thomas Bennett, 13 years of age, a nobleman's groom, was in attendance on his master, in the neighbourhood of the House of Lords, on the 6th of April. He was mounted on a high-bred horse, which took fright and ran away with him, the lad not being strong enough to hold him in. The animal went at full gallop along Parliament-street and Whitehall, until it was stopped by a timber-waggon, which was turning into Scotland-yard: against this it came with full force, receiving so severe an injury, that it died within half an hour. The boy was thrown violently forwards, and his head came in contact with a piece of the timber. He was picked up and conveyed into a neighbouring house, where I saw him almost immediately. He was insensible from the shock of the injury, but could move his limbs: he was breathing naturally, and his pulse was not materially affected: he had thrown up the contents of his stomach. The upper and right part of the head was covered by a large mass of clotted blood, which I removed with my hand, and found, on turning it over, that it contained portions of brain, which might have been about sufficient to fill a dessert spoon. This had escaped through a wound of the scalp, about one-third of an inch in length, just over the coronal suture. There was a fracture of the right parietal bone, which could be traced under the integuments from the back of the bone to the situation of the wound, at which there was a considerable and irregular depression. He was conveyed in a coach to the hospital; and a further escape of cerebral substance, to a small amount, was found to have taken place when he arrived. At the end of two hours he manifested sensibility on being pinched; he moved his limbs readily; the circulation, respiration, temperature, and colour of the skin, were natural.

As the bone was here evidently and considerably depressed, and as it was also probably driven in upon the brain, it would, I believe, have accorded with principles of treatment generally admitted, to have performed an operation for the purpose of elevating and removing depressed and detached portions of bone. The considerations which determined me not to do this were, the favourable state of the patient generally, and in particular the absence of all symptoms indicating compression of the brain; the specimens, in pathological collections, of very extensive injuries of the skull repaired by a natural process; the smallness of the external wound, which brought this case nearly into the state of simple fracture; the extensive incision of the integuments, and exposure of the bone, dura mater, and brain, which an operation would have involved; and the almost invariably fatal termination of such proceedings, within my own experience in hospital practice. In the latter respect, the chances are less unfavourable in a young than in an older subject; on the other hand, the powers of natural restoration are more vigorous in the former than in the latter. On the whole, I consider the dangers attendant on such an injury as that which befel this poor lad, to be much less than those belonging to the operation, which would have been required in this case.

A strictly antiphlogistic treatment was adopted, comprising perfect quiet, opening medicines and clysters, and tea diet. The head was shaved, and kept cool by the repeated application of cold cloths; and the wound was kept open, that blood or effused liquids might escape readily. In thirty-six hours after the accident, the external senses and the mental powers were completely recovered, and speech was restored. When questioned, he complained of pain in the head, which continued more or less for about ten days, and was the principal symptom referrible to the accident. On the 9th, the neighbourhood of the wound was red, hot, and painful, and there was restlessness. The application of six leeches removed these symptoms.

The entirely favourable progress of the case seemed to justify the course which had been adopted; but new and alarming symptoms appeared on the 14th. There was some increase of temperature in the head, and general feverishness.

Convulsions came on in the face and right limbs, while the left arm and leg were completely paralysed. The question of operation was again considered. I did not refer these symytoms to pressure of the displaced bone, believing that if any effect had been produced by that cause, it would have followed the accident immediately, and I thought the present symptoms must be ascribed to the inflammation of the brain, which might be expected after such an injury. The external wound was opened and probed, and gave issue to some bloody matter. Four leeches were applied in the neighbourhood, and were followed by bread-and-water poultices. Four grains of the hydrargyrum cum cretâ were given every four hours. A blister was applied to the nape, and the vesicated surface, after removal of the cuticle, was dressed with strong mercurial ointment. The mischief was speedily and effectually arrested by these means. The convulsions which had come on in paroxysms, did not return after the bleeding. The left arm and leg remained totally powerless for forty-eight hours, and then recovered slowly, but completely. The mercury quickly affected the mouth, and lowered the pulse, which became slow and feeble, with considerable sense of weakness. It was therefore necessary to give it up entirely at the end of a week, and to allow some improvement of diet. The strength and health soon returned, and the patient became quite well, except that discharge of matter continued from the original wound, and from another small opening, which had been made a little lower down. The integuments had remained detached from the bone to a considerable extent from the time of the injury, and matter had accumulated under the loosened portion of scalp; a counter-opening had been made to allow a dependent discharge. Matter can still (June 3d) be pressed out from both apertures, and a rough portion of bone can be felt with the probe introduced at the original wound. In all other respects this patient, who has for some time left his bed, is in perfect health: there is not a trace of imperfection in the senses, mental faculties, or the power of moving the limbs which had been paralysed.

T. Bennett remained some time longer in the hospital, in the expectation that a portion of bone would come away, and because a quiet mode of living, with strict attention to diet, was thought necessary until the part had become sound. No exfoliation, however, took place, and he left the hospital with the opening in the integuments still occasionally discharging. He came occasionally, that we might watch the progress of the case. In about a month the wounds had firmly cicatrised, and no evidence of the injury remained, except a considerable indentation of the skull where the bone had been broken.

Cancerous Affections of the Lips.—I have the opportunity of showing you two specimens of cancerous disease of the lips, which I have removed in the last two days. One was taken from the lower lip of a patient about fifty, in whom the disease had existed five or six years, without pain or material inconvenience; having, indeed, attained only a trifling magnitude. It was seated at the boundary between the mucous membrane and the red edge of the lip, occupying an equal portion of both structures, and consisted of a small indolent induration, causing a slight swelling of circular outline, less in circumference than a shilling, with an ulceration in the centre, covered by a brown incrustation. It had commenced as an indurated tubercle, and had not been long ulcerated. This gentleman had never smoked. There was no affection of the absorbent glands. Ineffectual attempts had been made to destroy the disease by escharotics. I sliced off the morbid production by passing a double edged knife under its basis. The diseased part presents a small mass of firm scirrhous induration; while the ulcerated portion is a broken surface, like that of some warts.

The other specimen exemplifies what is less frequent—namely, cancer of the upper lip. The patient from whom I removed it is a healthy person, near seventy, living in the country, and following the occupation of a farmer. Two years ago the disease began, as a wart on the integument of the upper lip, at least half an inch above the red portion. The hardened part ulcerated, and the complaint slowly spread downwards. There has been little or no pain, and the absorbent glands are unaffected. You see in this specimen a cancerous ulceration of the integument, about three-quarters of an inch in length, and half an inch wide. The edge is knotted, irregular and hard, and the surface of the sore is uneven: it is bounded below by the mucous membrane of the mouth, which is sound. It produced a sparing discharge, which formed a hard adherent incrustation. I removed this disease by a semi-circular incision, in the manner recommended by the late Baron Dupuytren, which I have found to answer the purpose perfectly well in several instances of similar operations. A section of this disease shows that it is a specimen of genuine cutaneous cancer; the cutis having been converted into a stratum of compact scirrhous structure, about a line in thickness, and the surface of the part thus altered having become ulcerated. The surrounding adipose, muscular, and mucous structures were quite healthy.

These examples show us that the disease in the lip may begin either in the common integument or in the red edge of the mucous membrane; that its characters are the same in both instances—namely, tubercular induration, proceeding to ulceration; indolent nature, slow progress, and absence of affection of the absorbent system. Disease exactly similar in nature and in progress is seen not unfrequently in the integuments of the cheek, nose, and lower eye-lid. The important difference between these several cases and cancerous affection of the mammary gland is, that the absorbents are not affected in the former, and thus that we may remove them with the knife, without any fear of those unpleasant subsequent occurrences which so frequently frustrate, in the end, our attempts at curing scirrhous disease in the breast by operation. I have removed portions of cancerous integument from various parts of the face, with complete success, in numerous instances, when the disease has been so situated as to allow the complete extirpation of the morbid structure, and the absorbent glands have been unaffected.

The latter ultimately become diseased in some cases. There are also malignant diseases of the lip, commencing in the interior, consisting of the successive occurrence of induration and ulceration, and affecting the absorbents at an earlier period. The present remarks are applied to those instances only in which the affection begins with tubercular induration of the external skin, the red edge, or the mucous membrane.

The superficial nature of the disease in these cases might induce us to attempt their destruction by powerful escharotics, such particularly as the chloride of zinc. I think the use of the knife preferable, as being more definite and certain: we remove all that ought to be taken away, and we do no more. It is, at the same time, far less painful. Some time ago I saw a lady with an affection of this character on the left temple; it was about the size of a sixpence; the mass of induration being inconsiderable, and the ulceration not deep. It was, however, very painful. Her sister had died of cancer in the breast, the disease having returned after an operation, and this had given her a great aversion to the knife. I applied the chloride of zinc, which certainly removed, both in surface and depth, fully as much as would have been taken away by the knife. The application was followed by the most severe pain, which lasted for several days and nights. The separation of the slough was followed by healthy granulation, and an apparently sound cicatrisation. Within a month, however, an indurated tubercle formed in the cicatrix, and was very painful. The patient now readily consented to the use of the knife. The part was freely removed, and there has been no recurrence to the present time, a period of more than twelve months.

Irritating and escharotic applications are not unfrequently tried to those diseases, almost invariably with the effect of inducing pain and increased activity in a complaint previously indolent and nearly stationary. I recommend to you, therefore, in the management of these cases, a choice between two courses; that of leaving things alone, or complete extirpation by the knife.

A few days ago I operated on an infant in the hospital for hare-lip. The fissure was confined to the lip; the child had thus been able to suck, and was still at the breast. The eligible time for this operation is before the first dentition, about the fourth or sixth month. The sides of the fissure were brought together with a silver pin, and the twisted suture at the red edge of the lip, and a simple suture at the upper part. I allowed the child to continue at the breast, having found, by experience, that the act of sucking does not interfere with the process of union, while it is much better for the health of the patient that it should continue to receive the wholesome nourishment provided for it by nature. —*Med. Gaz.*

LIST OF AMPUTATIONS IN THE PENNSYLVANIA HOSPITAL,

FROM MARCH, 1837, TO MARCH, 1838, WITH THE RESULTS.

[Reported by H. H. Smith, M.D., Res. Sur.]

April 8th.—Amputation of the thigh, for caries of the bones of the leg, (involving the knee-joint,) and sloughing ulcer; died three days after. *Sept. 11th.*—Amputation of the arm, above the elbow, for a simple fracture of the end of the radius, rendered compound by a tight bandage, previous to his admission; union nearly perfect three weeks after, and a ring of bone from the humerus exfoliated during the cure—discharged cured, November 25th. *Sept. 26th.*—Amputation of the fore-arm, for caries of the wrist, ligatures remained till the end of the fourth week—discharged cured, 27th November. *Oct. 28th.*—Amputation of the fore-arm, for a gunshot wound of the hand, opening the wrist-joint; discharged at his own request, November 30th—the stump healed a month after, considerable exfoliation of bone having taken place during the cure. *Nov. 15th.*—Amputation of the thigh, near the groin, for fungus hæmatodes, discharged January 10th, 1838. *Nov. 17th.*—Amputation of the shoulder-joint, for extensive laceration in machinery; reaction never complete, died three days after. *Jan. 24th, 1838.*—Amputation of the leg, below the knee, for caries of tarsal bones, cured Feb. 21st.—*Medical Examiner.*

OBSTETRICS.

CASE OF CÆSAREAN SECTION, PERFORMED WITH SUCCESS FOR THE FOURTH TIME ON THE SAME INDIVIDUAL.

BY DR. MICHAELIS, OF KIEL.

An account of the three preceding operations, and of the case generally, is given in our second volume, p. 270. The first operation was performed in June, 1826, the woman being then in her twenty-ninth year; the second in January, 1830; the third in March, 1832. This woman became once more pregnant, and, the operation being equally necessary as before, it was performed by Dr. Michaelis, on the 27th June, 1836, after the patient had been in labour three days. The new incision intersected the second and third cicatrices, and the uterus has become so completely adherent to the abdominal parietes that the peritoneal cavity was not laid open. On the third day after the operation, the patient was threatened with alarming symptoms of peritonitis, accompanied by tympanitis, which speedily yielded to the internal exhibition of ice and a few doses of calomel. The external wound could not heal, on account of the gaping of the uterine opening, which kept apart the adherent margins of the divided skin, and thus converted the wound of both integument and uterus into a single symmetrical aperture. On the 1st of August, (the period at which the last report is dated,) the uterine aperture was rather more than half an inch in extent; and this diminution appeared to be solely dependent on the gradual contraction of the uterus, inasmuch as the healing process itself was not then contemplated. Nevertheless, the patient left her bed daily, and her general health was good. She herself suckled her child, which was thriving well.

[An interesting point connected with this case is the occurrence of peritonitis after the fourth operation, in which instance alone, it will be remarked, the serous sac was *not* opened, and was therefore unexposed to the influence of external agents, as the atmospheric air, &c.

A medical friend suggests the expediency, in cases of hopeless deformity of the pelvis, that the fallopian tubes should be divided during the Cæsarean operation; in the event of a successful result to the operation, this proceeding would, of course, do away with all risk of a second.]—*Pfaff's Mittheilungen.*

CASE OF UTERINE HEMORRHAGE CURED BY ERGOT OF RYE.

A WOMAN, aged 24, of very weak constitution, was admitted into St. Thomas's ward, at the hospital of La Pitié, under the care of M. Piorry, on the 21st of July, 1837. After having been in a sickly state during the whole period of pregnancy, she had been brought to bed, a month before her admission, of a fine child, which was her first. The delivery was not very laborious for a first case, and was terminated by the efforts of nature alone. The catamenia have always been regular, and she has never had any uterine affection. Ever since her delivery she has continually lost blood from the genitals, and these floodings have gone on increasing, till the patient determined to enter the hospital. The blood discharged is generally fluid, but is sometimes mixed with black clots.

The general state of the patient, at the time of admission, was satisfactory, with the exception of the pulse, which was 110.

On placing the hand upon the hypogastric region, there was nothing irregular, excepting that the uterus seemed rather larger than it ought to be a month after parturition.

On percussion, there was resonance and elasticity of the abdomen, and a dull sound followed stronger percussion in the situation of the uterus. On examination *per vaginam*, it was found that the cervix of the uterus was dilated and gaping, so as to allow of the introduction of the first phalanx of the fore finger. The cavity of the cervix was partly occupied by a tumor of the size of a hazelnut, and of irregular surface, which projected into the vagina. On tracing the tumor with the finger into the interior of the uterine cavity, it was easy to perceive that its size increased in proportion as the finger advanced farther. It could be circumscribed with the finger, so as to ascertain that it adhered neither to the neck nor to the most sloping part of the uterus.

Diagnosis.—A foreign body in the uterus; either a polypus, a portion of placenta, or organized clots of blood.

Prescriptions.—Twenty-four grains of ergot of rye, in two doses; emollient injections; the use of the bidet; barley water; a basin of soup.

July 22.—The patient has had shivering fits followed by heat, and colic during the night. On examination, it was found that no change had taken place with respect to the tumor: the neck of the uterus and the external parts were extremely flaccid. Forty-eight grains of the ergot were prescribed, and quarter diet; the rest as on the preceding day.

23d.—No shivering. After the administration of the last dose of the ergot, the colic returned with more violence than on the preceding day. On examination, it was found that a larger portion of the tumor projected through the os tincæ; so that it appeared than an attempt at expulsion was beginning. By the help of the speculum, the tumor was seen to be greyish. A drachm of the ergot was prescribed; the rest as on the preceding day.

24th.—The uterine hemorrhage and the colic continue; the os tincæ is not so open as yesterday; no other change; same prescriptions.

25th.—The patient is cold; the pulse small; the tongue white. The hemorrhage has ceased: instead of which there is a white discharge, which is sanious, thick, and fœtid. A drachm of the ergot, the bidet, and emollient injections, were prescribed; with two basins of soup as the sole nourishment.

26th.—The tumor is larger, and projects more than it did yesterday. Prescriptions: a drachm of the ergot, a vapour bath, emollient injections, and quarter diet.

29th.—The patient is weak; her face has a worn-out look; the leucorrhœa continues, but is less than on the preceding days. Prescriptions: forty-eight grains of the ergot, with four grains of subcarbonate of iron, and these three-quarters diet.

30th.—A substance like an organized clot of blood has come away from the neck of the uterus; it is of the size of a large walnut, soft, and easily torn. Prescriptions: a drachm of the ergot; four grains of subcarbonate of iron; a vapour bath; and quarter diet.

31st.—The patient has suffered from sever colic; after which another substance, like the one of yesterday, was again expelled. Prescriptions: a drachm and a half of ergot; the rest as yesterday.

August 1st.—The colic continues as severely as before; nothing has been expelled from the uterus; the cervix is rather contracted; the patient has no discharge, either red or white, and, with the exception of the colic, does not suffer at all. Prescriptions: a drachm of the ergot, and four grains of subcarbonate of iron.

2d.—The colic has been accompanied by shooting pains in the loins, which the patient compares to those which she feels before the appearance of the catamenia. The os tincæ has completely contracted, so that the introduction of the fore-finger into the interior of the uterus is now impossible. Every thing combines to show that the uterus is entirely freed from the foreign body which is contained. The general state of the patient is satisfactory; her physiognomy has improved; her complexion is returning; there is no discharge, except a slight leucorrhœa. Prescriptions: the use of the bidet; three-quarters diet.

3d to 8th.—The state of the patient is becoming more and more satisfactory; in fact, she has no pain. Prescriptions: the use of the bidet; twelve-grains of carbonate of iron; half diet.

10th.—The patient requests to be dismissed, although the premonitory symptoms of the catamenia seem to be present. The leucorrhœa has entirely ceased; her general state is good. Cured.—*Gazette des Hôpitaux*, from *Lond. Med. Gaz*

REMARKABLE CASE OF TRIPLETS.

BY W. LOVEGROVE.

On Sunday morning, the 10th inst., I was called upon to attend Mrs. Hamot, residing at No. 7, Upper Park Place, Regent's Park, in labour with her sixth child. On my arrival, at half-past ten, I found she had been in labour some hours; the membranes had been ruptured, and on making an examination per vaginam, I discovered a breech presentation; the feet were brought down, and the child delivered in the usual manner. On laying the hand on the abdomen, it was evident the uterus contained another child. On making a second examination, per vaginam, the membranous bag of the second child was detected, and of such volume, and containing so much fluid, as to render it impossible to determine the presenting part. In half an hour after the expulsion of the first child, the pains, which had ceased for a short time, recurred, and before the hour had elapsed the membranes were ruptured, and at least two quarts of fluid escaped; the head of the second child descended, and was, with the body, quickly expelled. The hand being again laid on the abdomen, detected another child, which, after a few minutes, like the second, evolved under the head presentation, bringing with it its own placenta entire; subsequently the placenta of the two first-born children were expelled perfectly distinct from each other.

The peculiarities of the case are, that the children, two boys and one girl, were born alive, well formed, and apparently of full growth; that each had its own placenta and membranes unconnected with those of the other, and expelled separately; that the second and third membranous cysts were simultaneously ruptured after the expulsion of the first child. The woman is in her 34th year, has suffered no inconvenience, and is at present doing extremely well.—*Lond. Med. Gaz.*

A FASTING WOMAN.

It was cried about the streets of Paris, that a woman of clear complexion and plump habit, suckling a large child six months old, had eaten nothing for a year and eight months. As she did not eat, she necessarily must have had no evacuations, and this was also asserted; so that the miracle was complete.

It was added that she had the power of living on water alone, without making the slightest effort, or even moving at all.

She was admitted into the Hôtel-Dieu on the 30th September, and is now in the St. Monica ward, No. 60, under the care of M. Magendie. Her name is Maria Rosa Felicity Hardy, and her age is thirty-one; she is a char-woman, and born at Catigny, in the department of the Aisne. She is neither fat nor lean, but, if any thing, rather inclining to the latter, and of a sanguine temperament.

For the first few days it could not be perceived that she took any nourishment.

At any rate she touched nothing that was placed near her bed, either solid or fluid; nor was any evacuation discovered.

She was then in the St. Benjamin ward, under the care of M. Caillard, who did not believe in these wonders, and thought that he should sooner or later find out that she was a trickster.

M. Caillard not being able to put this woman under lock and key in his wards, sent her into those of M. Magendie, who had a small room at his disposal quite fit for experiments of this kind. The woman was shut up with food, of which the quantity was exactly measured. She seems to have fasted for eight days, unless indeed she received nourishment secretly, and without the knowledge of the physician; but on the ninth day she ate. Fæces were found very well concealed in a mattress, which she had sewed up again. After this there was no interest in continuing the experiment; she was removed from the room, and had a bed in the ward.—*Gazette des Hôpitaux.*

BIBLIOGRAPHY.

Curiosities of Medical Experience. By J. G. Millingen, M.D., Surgeon to the Forces; Member of the Medical Society of the Ancient Faculty of Paris, of the Medical Society of Bordeaux; and Author of "The Medical Officer's Manual," &c. *Homo sum: humani nihil à me alienum puto.*—Ter. 2 vols. pp. 407 & 411. London: R. Bentley.

This is a book of very pleasant, occasionally instructive, and not always over accurate gossipry. The melange of fable and fact is somewhat puzzling to the very literal reader; as is that of bold speculation and seeming scepticism to him who is a rigid stickler for closeness of philosophical induction. To one conversant with the subject under discussion, the author stops short rather provokingly at the point where his references might be supposed to become more numerous, and to assume more the character of contemporary and convincing history. But even where the testimony is inadequate, or the reasoning wanting in closeness and conclusion, much is suggested to the inquisitive mind for farther thought, and, it may be, not unprofitable application. There are evidences of various, perhaps second-hand reading, if not of deep research. In fine, to make the application which we are aiming at, for our readers, we should say; that these "Curiosities" are such as a medical man would like to be acquainted with; partly for their intrinsic merits, partly for the medical literature which they reveal, and still more, however it smacks of vanity to make the acknowledgment, for the conversational resources in the sick-room and in the family circle of the invalid, which they place at his disposal.

An enumeration of some of the articles in these volumes, will give a better idea of Dr. Millingen's intentions than any farther remarks of ours. In the first volume we have, among many others, the following:—*obesity; dwarfs; gigantic races; unlawful cures; voice and speech; ecstatic exaltation; varieties of mankind; buried alive; spontaneous combustion; lunar influence on human life and diseases; spectacles; leeches; somnambulism; medical powers of music; the food of mankind, its use and abuse; phrenology; ventriloquism; dæmonomania; the plague; abstinence; enthusiasm;* &c., &c.

In the second volume are, *barber surgeons, and the progress of the chirurgical art; on dreams; on life and the blood; of the homœopathic doctrines; doctrine of signatures; coffee; animal magnetism; sympathies and antipathies; monsters; longevity; cretinism; temperaments; solar influence; drunkenness; decapitation; mummies; hydrophobia;* &c., &c.

Here, surely, is a promise of variety; and that not made to the eye alone, but on occasions kept to the inner sense. After some deliberation, we have come to the conclusion of introducing the "Curiosities of Medical Experience" to the readers of the Library; with, perhaps a needless, because well understood proviso, that we neither adopt with any uniformity Dr. Millingen's creed, nor join him in his doubts and scepticism. We do not, for instance, believe in animal magnetism, nor in homœopathy; whilst we have faith in temperance societies, and in certain matters of which the author speaks with levity. We do not now refer to the legends of the saints, nor to kindred subjects.

The two goodly-sized English volumes, which contain, with Introduction, about eight hundred and forty pages, will take up a little more than a Number and a half of our "Library." We believe that our readers will thank us for the publication of the "Curiosities of Medical Experience," and that the volume of which they will consist, will be well, if not often read.

The Influence of Physical Agents on Life. By W. F. Edwards, M.D., &c. Paris. Translated by Thomas Hodgkin, M.D. London, pp. 488.

It would be difficult within the range of medical literature, since the beginning of the present century, to find a volume of higher value in physiology, or one which has done more to solve some of its important problems, than that which contains the experimental investigations of Dr. Edwards. The work is now classical, and of admitted authority and rule among the best writers and teachers in our profession. It was our good fortune to be the first to call fully the attention of our American brethren to the original French edition, in an analytical review of it, which appeared in the North American Medical and Surgical Journal for April 1828. Again, does the further agency devolve on us of introducing into general notice Dr. Hodgkin's translation of the entire work;* and of thus placing it in the power of so many intelligent physicians and medical scholars, to refer with readiness to the work itself, as to a rich and well arranged store-house of various facts and deductions of the highest importance.

MEDICAL SCHOOLS.

From catalogues lately issued, we note the number of matriculants in various Medical Schools, for the present session, to be as follows:—380, in the University of Pennsylvania; 227, in the Lexington Transylvania University; 122, in the Cincinnati Medical College; 100, in the Louisville Medical Institute; 82, in the Harvard University; and 80, in the Medical College of Ohio. From a report lately published, this latter institution seems to be in a prosperous condition.—*Medical Examiner.*

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* Some tables are omitted in the translation which are found in the original.

In addition to the above, we would mention, that the students attending the lectures in the Medical College of the State of South Carolina, during the session of 1837–8, were 141; as we learn from a catalogue lately received.

We may state, for the information of the parties concerned, that if we have not reported the number of matriculants in other schools than those already entered in our Journal, it is because we have not received any official notice or catalogue. Whether near or remote, the proper officer can take the trouble to send us the requisite document,—provided, always, that he think an insertion of its contents desirable in our pages. The same remark will apply to books. With so many journals and works for our own use and study on our table, it can hardly be supposed that we should go about hunting up and purchasing all the last lucubrations of authors at home, or of republications of those from abroad. When these are sent to us they are invariably noticed, in such terms as to us seem required by their merits.

MEDICAL INSTRUCTION.

The Summer Session of the Philadelphia Medical Institute will begin on Monday, the 2d of April. The details of the course of lectures have already appeared on the cover of the Journal.

Doctors Clymer and Biddle propose to receive a limited number of private pupils, from the 1st of April, "who will be examined carefully and repeatedly on all the various branches connected with medicine, and more particularly on the several courses of lectures which they may attend." "A Course on Minor Surgery will be delivered during the year, with all the incident operations;" and "the various obstetric manipulations will be demonstrated on the machine." "The class will have access to a good library, including all the new foreign and domestic publications, journals, &c.; also to a large and carefully selected Materia Medica collection."

Summer Lectures in Lexington, Kentucky.—We have just received a half sheet of the Lexington Intelligencer, in which we see it announced, that Dr. Thomas D. Mitchell, Professor of Chemistry in the Transylvania University, will give a course of lectures on the Theory and Practice of Medicine; and another on Chemistry, during the interval between the middle of April and October.

Dr. Mitchell has received the thanks of the graduates of the present season, and of some of the medical students then in Lexington, for the promptness with which he offered his services to supply provisionally the vacancy left by the death of Dr. Eberle, by the delivery of lectures on the Theory and Practice of Medicine.

In the same paper, is a notice of lectures under the title of the "Lexington Medical Institute," for the ensuing summer, by Drs. Bush and Cross, of the Transylvania University, L. Warfield, Pawling, Letcher and Peter.

DOCTOR EBERLE.

Our readers have been apprised from other quarters of the death of Dr. Eberle, at Lexington, Ky.; in the Medical School of which he was Professor of the Theory and Practice of Medicine. He was a man of learning, and a voluminous and successful author.

THE RED SULPHUR SPRING OF VIRGINIA.

We have only just time and room to acknowledge the receipt of Dr. Henry Huntt's valuable pamphlet, entitled "A Visit to the Red Sulphur Spring of Virginia, during the summer of 1837: with Observations on the Waters." Of its contents we shall speak in our next number.

THE ECLECTIC

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[From the Medico-Chirurgical Review.]

ON THE TREATMENT OF THE VENEREAL DISEASE BY MERCURY.*

I.

The modern Lacon, in one of his aphorisms, declares that all which medicine has been able to effect in sixty centuries, has been the discovery of two specifics, mercury and brimstone. If this had been all, it would have been but little, nay less than even the sarcastic epigrammatist supposed, for the first specific, mercury, is considered by many to be no specific at all. A pregnant instance of this curious fact may be found in the juxta-position of the three works, whose titles we have placed in a note to this article. The first, by Dr. Colles, is devoted to the object of showing the necessity of salivation for syphilis: while the third, by M. Devergie, is intended to point out the folly, obstinacy, and ignorance of those who pursue such irrational treatment.

The enthusiasm of our neighbours appears strange, almost ridiculous, in the eyes of a people so practical and sober as ourselves. We cannot repress a smile when we see such enthusiasm excited by occasions which seem to be little calculated for the purpose, and that smile is too apt to be tinctured with contempt, when substantial advantages and positive results are sacrificed for that honour or glory, which are ever in a Frenchman's heart and mouth. Yet our more phlegmatic temperaments, so useful to us as a commercial people, are perhaps too little qualified by a generous desire of mere distinction, and the constitution of society, which grows out of our national character, has contributed to give a mercenary tone to every calculation. Where a French savant aspires to the cross of the legion of honour, an English philosopher is pondering on what may make his fortune: and while the science of the former is devoted to the improvement of the arts of life, that of the latter is more profitably engaged in their application. But to return to our proper subject.

Dr. Colles draws the following picture of the present state of our knowledge with respect to syphilis:—

"When we recollect, that for three centuries and upwards, medical men throughout all Europe, have been employed most extensively and uninterruptedly in the treatment of this disease; that during almost the entire of that period a remedy has been known which possessed the power of curing this disease; that this remedy, since its first discovery, has undergone a variety of modifications and combinations, supposed to render it more suited to particular states or forms of the disease; that, in addition to this, some other remedies, and other plans of treatment, have been found to effect its cure: when, I say, we take all these facts into account, surely it might be reasonably expected, that with all these advantages, we should by this time have arrived at a knowledge of fixed rules for its treatment, and have acquired such a command over it, as to be able to say, that we can control its course and check its ravages.

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* I. Practical Observations on the Venereal Disease and on the Use of Mercury. By Abraham Colles, M.D., one of the Surgeons of Doctor Stevens's Hospital, and lately Professor of Surgery in the Royal College of Surgeons in Ireland. 8vo. pp. 351. 1837.

II. The Works of John Hunter, F.R.S., with Notes. Edited by James F. Palmer, Senior Surgeon to the St. George's and St. James's Dispensary, &c., &c. In Four Vols. Illustrated by a Volume of Plates, in Quarto. Vol. II. London, 1835.

III. Historical and Medical Researches into the Origin, Nature, and Treatment of Syphilis. By M. Devergie, Sen. Translated by John Sinclair Innes, Surgeon. 18mo. pp. 63. 1837.

"Yet I think it is not an exaggeration to assert, that at no period, since the disease was first subdued by mercury, has the opinion of practitioners been more divided and unsettled, or their treatment more wavering and unsuccessful.

"Anxious to have this reproach wiped away, not merely because it involved the character of the profession, but rather because it too clearly showed that the human race was suffering severely from our imperfect knowledge of the treatment of this disease, I sought to discover the causes of our backwardness. After mature consideration, I was led to attribute it principally to two causes:—

"*First.* The imperfect knowledge we possess of the natural course or natural history of the Venereal Disease.

"*Second.* The very imperfect knowledge we possess of the means of directing the operation of mercury, so as to make it act in a salutary manner; and the equally imperfect knowledge we have of the earliest phenomena which would indicate that it is beginning to act as a poison rather than as a remedy."—P. vi.

These are valid reasons for any communications from a practical and observant man, upon this apparently perplexing disease. It is for the same reasons that we have on several occasions devoted many pages of this journal to the subject; and, for aught that we can see, if such reasons are to sway us, we have to devote many more pages still. The plan pursued by Dr. Colles may be stated in his own words.

"I have stated in detail such observations as I have made as to the progress or natural history of the Venereal Disease; and I have offered some remarks on the mode of administering mercury, so as to induce the salutary action of this medicine. I have, also, attempted to point out a few early indications, which denote that its action will become poisonous if its use be persevered in; and I have detailed many of the symptoms of Syphilis, and stated my opinion as to their appropriate treatment."—P. vii.

"From this statement, then, the reader will not expect to find in the following pages a systematic treatise on the Venereal Disease; on the contrary, some symptoms have not even been mentioned, and others have been noticed only in a cursory manner. The remarks which I have offered are merely the result of my own observations and reflections. Of what value these may prove, I leave to my professional brethren to decide; only assuring them, that the facts are stated with the most scrupulous fidelity.

"To the observations on the use of mercury in Syphilis, I have added some observations on the use of this medicine in the treatment of diseases not venereal. In this second part of the work I have studiously avoided any mention of its use in the diseases in which its efficacy is generally known and long established; and I have designedly and strictly confined myself to those in which it has been only very rarely employed, but in which I have had the good fortune to have found it a most active medicine, and a most speedy and invaluable remedy."—P. viii.

The work is divided into two Parts. The first treats of the Use of Mercury in Venereal Complaints—the second treats of the Use of Mercury in Affections of the Nervous System. The first part contains fifteen Chapters, with the following titles. 1. On the Natural History of the Venereal Disease; 2, On the Administration of Mercury; 3, On the Same; 4, On Chancre; 5, On Bubo; 6, On a Disease of the Lymphatic Glands of the Groin, attended with Peculiar Symptoms; 7, On Secondary Symptoms; 8, On Venereal Diseases of the Mouth, &c.; 8, (*bis*), On Venereal Eruptions, Nodes, and Diseases of the Testicle; 9, On the Use of Mercury in Venereal Hectic Fever; 10, (*bis*), On Mercury during Venereal Eruptions; 11, On the Treatment of Syphilis in Scrofulous Patients; 12, On Minute Doses of Mercury in Late and Chronic Bubo; 13, On Syphilis in Infants; 14, On Pseudo-Syphilis; 15, On the Non-Mercurial Treatment of Syphilis.

A glance at the headings of these Chapters is sufficient to demonstrate the absence of any natural arrangement of the subjects upon which the author treats. We may therefore take any liberty we please with such desultory observations, and throw together parts which are disjoined in the original.

The present article will be confined to the examination of the propriety of exhibiting mercury in syphilis, and to the natural course of the latter. We shall therefore begin with the last Chapter of Dr. Colles's book, and place by its side the observations of M. Devergie. We will commence with the latter, and we think it will soon appear that the extravagant enthusiasm of his nation is displayed in a striking manner in his pages.

It is unnecessary for us to enter on the history of the Venereal Disease, or of the application of mercury to its treatment. Suffice it to say, that the latter was not regulated by scientific principles, and that it was given to a ruinous extent as well as under most unfavourable circumstances. Various attempts have been made to substitute other remedies for mercury in the treatment of syphilis. Each has been partially, none wholly successful. As the horror of mercury has long struck deep root into the minds of men, these failures must be deemed presumptive evidence, that common experience has decided against the general success of anti-mercurial methods.

But although these did not supersede the use of mercury, they opened the eyes of men of observation to the errors which had prevailed with respect to the absolute necessity for the latter, and they tended strongly to correct the abuses which had prevailed in its administration. Salivation was carried to a less frightful extent, and it began to be a question what symptoms were, and what were not adapted for its application.

It was about the beginning of the present century, that the attempts to cure syphilis without the aid of mercury, were once more generally made, and that the numerical method was extensively employed as a test of their success. Those attempts were certainly commenced and carried on most fully by English, and, particularly, by our army surgeons, though M. Devergie has ingeniously endeavoured to arrogate the merit to his countrymen.

It would be saying no more than the truth, to observe, that the results took the profession by surprise, and that numerical data, apparently unobjectionable, seemed to establish, in a decisive manner, the superiority of the non-mercurial over the mercurial method.

Leaving this country for a season, we will show, from M. Devergie's pages, what has taken place in France. If his statements are to be implicitly received, the non-mercurial plan has flourished in that country, and the mercurial will, ere long, be almost extinct. After citing the names of a few who had distinguished themselves in opposing the old doctrines, M. Devergie goes on to observe:—

"The school not less celebrated for its physiological doctrines, (of which Val-de-Grace has the honour not only of being the birth-place, but also of reckoning among its inhabitants the worthy founder of this school,) furnished physicians who, young in years, but strong in the good principles derived from so fruitful a source, entering the lists, contributed by their enlightened and novel researches to overthrow the ancient edifice, in order to elevate a new one more regular and more worthy of modern knowledge. Every day sees an increase in the partisans of this new treatment of syphilis. These ideas are not confined to the circle of French physicians; they have spread themselves among strangers—into England, America, Sweden, Denmark, and some parts of Germany, the same systems having been tried, the results have soon surpassed their expectations. We shall now be able to make known to you the results of this new method, and lay before you the observations collected as to it, as known under the name of the antiphlogistic system, known equally under the denomination of the simple and rational method; a method against which there has been an outcry from all parts, which has been condemned without being understood; been disputed every day, against which some men high in medical reputation, have daily hurled from the height of their chairs, anathemas and ridicule, and endeavoured to persuade their pupils that they are dragged into a false and deceitful route, in teaching them principles which they have it in their power to verify at the bedsides of the sick."—P. 28.

Then comes the history of the progress of the anti-mercurialists in France.

"Chaussier, of immortal memory, regarded mercury as of little use in the treatment of syphilis. In 1811, the late Gerardot, the friend and rival of the author of 'the Chronic Phlegmasiæ,' taught me the art of curing all the chronic syphilitic phlegmasiæ by the dietary system; whilst, at the same time, Baron Larrey brought about a happy change in the administration of mercury, that rendered the treatment more simple, easy, and less dangerous, so that it has since been made the method of M. Piborel. In 1811 and 1812, appeared successively the works of Caron upon a new mode of considering the syphilitic contagion; the considerations of M. Jourdan upon syphilis, the work of M. Keraudren, physician-in-chief to the navy, upon secondary syphilitic symptoms, and the exclusion of mercury from their treatment, and afterwards the valuable proposition of M. Broussais upon syphilis.

"In 1824 were published the considerations of M. Lefévre upon the abuse of mercurials, and the essay upon the venereal disease of M. Dubled; the year 1826 saw appear the treatise on the venereal disease of M. Jourdan, the work upon the non-existence of the Syphilitic virus of Dr. Richmond, accompanied with tables of the first treatment without mercury, at the military hospital of Strasbourg; at the same period appeared the first part of the 'Clinique of Syphilis,' since become a complete treatise on Syphilis, with 125 plates, a work for which I had lately the respects of the academy. In 1827 was published in a medical journal, the report of the *College Sanitaire of Sweden*, upon the advantages of the treatment without mercury. Almost at the same period, also, the council of health of the army, thoroughly persuaded of the advantages to be obtained by changing the mercurial treatment, induced the heads of the military hospitals to make trial of the simple and rational treatment. In 1828 and 1829, M. Desruelles made known the statistical results of the simple treatment employed at Val-de-Grace for the cure of venereal diseases. I have published in 1830, in the 15th, 16th, and 17th parts of my 'Clinique,' the tables of MM. Rapatel and Desruelles of Rennes, who in 1827–28–29, treated 1410 patients by the simple treatment. I must mention also the works of M. Willaume, surgeon-in-chief of the hospital of instruction at Metz, upon the advantages of the antiphlogistic system, and those of M. Puel of Marseilles. I have to tell that at Lille, Havre, and Bayonne, Drs. Delatour, Desjardins, and Becquart treated in the hospitals their patients by the simple treatment. I must not forget to mention the opinion of the late Delpech of Montpellier, who, imbued with ideas of virulence, treated, for a long time, the disease with mercury, lavished in all its forms, who, enlightened by degrees through experience, modified to such a state his ideas and treatment, that he published, in 1828, that gonorrhœas and chancres might be completely cured by the efforts of nature solely, ninety to ninety-five times per cent., and that nature alone had cured one-half of the ulcers of the throat, pustules, radesyge, &c. Since 1830, I have received new proofs that, united with those communicated by my colleague and friend, Dr. Desruelles, have gone to prove that at this time the simple rational antiphlogistic method ought to be adopted as a *general method* in the treatment of syphilis, whilst that the mercurial is used more as an *exceptional method*, employed in those cases where the simple system might have been found to be insufficient. Thus, at Rennes, the simple treatment, by procuring such advantages, the disproportion between the two kinds of treatment is become excessive. Out of 1505 patients affected with primary symptoms in 1827–28–29, 1187 had been treated without mercury, and 318 by mercury; whilst during eighteen months of 1830–31, 876 symptoms were cured by the simple method, and only forty-eight by the mercurial. This amelioration is still more sensible in the employment of the means for curing relapses; for in sixty-four relapses after one or other methods of treatment, twelve only were subdued by mercury; these twelve cases required for themselves alone 1082 days, whilst the fifty-two others took only 1863, so that it allowed to each case of the first eighty-one days, whilst for each of the second it was only thirty-five days. At Val-de-Grace Dr. Desruelles and myself have obtained summaries since 1825, with results not less advantageous. M. Barthélemy, at the military hospital of *la Maison-Blanche* (Paris), in 1833, had also to treat more than 700 syphilitic patients by the same method, and employed mercury only in a certain number of secondary affections. M. Kaisser, at the military hospital of Strasbourg, treated equally with the same success, by this method, for three consecutive years. At Algiers M. Fleschutt, surgeon-major to the hospital of the Dey, obtained also a great success by the simple and rational treatment, and for three years has to congratulate himself with having renounced mercurial preparation. At the syphilitic hospital of Paris, this method was made trial of by M. Cullerier; and the documents published by MM. Ruft and Pailloux of Chambereari, in 1831 and 1832, proving that the antiphlogistic treatment had been making progress for some years, and possesses real advantages, that are appreciated there. Indeed, out of 512 patients, 339 were cured by the simple treatment, the mean duration being thirty-two, whilst of the others it was forty-seven by the mercurial method. The relapses after the simple treatment have been one in twenty-eight; and the physicians of this establishment have been so sensible of the advantages of this simple and rational method, that there did not exist (in 1834) a more complete mercurial treatment, than that mercury is there employed as a powerful alterant of the economy only in those cases where the other methods have been used without success, and in general in small doses. For one year that I have had the charge of the first division of venereal patients at the military hospital of Gros Caillon, I have continued the same mode of treatment, and have not had recourse to mercury but in exceptional cases that have not yielded to a simple treatment."—P. 33.

The following short notice of the labours of the English, and the candid exposition of our professional constitution are characteristic.

"The English physicians have entered the lists, and have treated without mercury, but not without exciting medicines, so that, with the exception of the works of Thompson, Turner, Brown, Ewans, Hennen, and some others, to which we may add the names of Guthrie and Sir Astley Cooper, we must reject the writings of the other English physicians, for they did not assist, but rather discredited this anti-mercurial system, without any advantage to their patients, who encumbered the hospitals uncured. But this need not appear astonishing to you, gentlemen, that it has been so long thus in a country where, with the exception of some of the principal physicians and surgeons, the physician and apothecary are one and the same; where the hand that writes the prescription at the bedside of the patient passes into the shop for its preparation."—P. 34.

That "Old England" could be compared with "Young France" in intelligence, was, of course, not to be expected. The former has not enjoyed the advantage of a Val-de-Grace, of the great physiological doctrine, of the author of the Examen, nor of the sucking "physiologists," who have sprung from his scientific loins. But it is rather singular that, considering the unbounded love of M. Devergie for the anti-mercurialists and their views, he should have found it in his heart to hold at so cheap a price the labours of Thompson, Ferguson, Rose, Hennen, Guthrie, &c., and the reports of these gentlemen extending from the year 1801 to 1823. According to his own showing, it was only in 1811 that the late Gerardot taught him, M. Devergie, the art of curing the syphilitic phlegmasiæ dietetically, and it was only about the same time that the valuable propositions of M. Broussais appeared. Were the English, then, so very far behind? Has their application of statistics been so very late? With the utmost liberality, it is impossible not to perceive that M. Devergie is a vain-glorious man, puffed up with a frivolous amour-propre and amour de patrie.

But these are personal considerations, and, if we turn from them to the practical part of the question, we find that, in France, the non-mercurial treatment would appear to have met with a good deal of favour. M. Devergie introduces at the end of his work some results of trials conducted rather extensively by himself. But they are so confused that we must waive their insertion, and content ourselves with stating, that, like the reports from the non-mercurialists in this country, they go to prove the superiority, in point of success, of the simple antiphlogistic over the mercurial method.

So far as numerical comparisons go, the non-mercurial would appear to be superior to the mercurial mode of treatment. If any thing is clear this seems to be so. As this is an age in which a reverence for antiquity and a dislike of change are by no means prevalent faults, we might suppose that the mercurial treatment is pretty generally given up, and that the best informed surgeons have verified by their individual experience, results so decisive and so irrefragable as those established by the documents to which we have alluded.

We will turn to Dr. Colles and inquire of him the state of the case in Dublin.

> "When this plan," (the non-mercurial treatment) "first attracted the notice of the surgeons of Great Britain, both my colleagues and myself," he says, "adopted it in our hospital. In general we confine this treatment to men who had not used any mercury; but, as in Dublin it is extremely difficult to meet with venereal cases in hospital, who have not applied to some apothecary, or received medicines at a dispensary, we could not adopt it as the general practice of the institution. However, we tried it until we all became convinced of this fact,—that it was not suited to patients who were obliged to earn their bread by labour; for we saw that after they had left the hospital, and got into employment, they generally found themselves weak, and unequal to their usual labour; and often, at the end of two or three months, they returned emaciated, pale, and enfeebled, in consequence of the hectical form of fever which was about to usher in a new series of venereal symptoms. Their stay in the hospital also proved, in general, very protracted; so that they then became impatient of this treatment, especially when they saw others with similar symptoms, in the same ward, have their complaints more quickly cured by the use of mercury. In private practice, also, I employed it for a time; but not finding it superior in point of quickness of cure, or of security against a relapse, and observing that these relapses were more frequently reiterated, in a short time I ceased to employ it, except at the express solicitation of the patient. But I had many opportunities of witnessing the results of the practice of some of my brethren, who adopted it more fully. Of course I could not know much of those cases in which this practice was successful; but in many of those who suffered from secondary symptoms, and from relapses of the different series of secondary symptoms, I had melancholy proof that this treatment was too often unequal to remove syphilis. No doubt fewer of the non-mercurial patients complained of affections of the bones, than those who had been ineffectually treated by mercury; but I saw instances of closed pupil and opaque lens, produced by iritis which had been neglected, not having been considered as venereal symptoms. I have seen many cases where the soft parts of the throat had suffered severe mutilations; and, above all, I had too many opportunities of watching the very slow and silent, but sure inroads, which the often-repeated attacks of secondary symptoms made on the constitutions of the patients; of witnessing this phenomenon,—that the venereal disease, from year to year, showed itself with less striking characteristics, while other diseases appeared to spring up; so that, for some months before the death of such patients, it would require a close examination to discover the one or two slightly-marked symptoms of syphilis which remained; and also required close research to trace the symptoms of apparently the last and fatal disease to its true source, the infection of syphilis. But on tracing the state of health, from the primary ulcer down to the final and fatal disease, I could clearly see that at no period was the unhappy sufferer altogether free from the venereal disease; so that both the patients and their friends, in many instances, lost sight of the original syphilitic disease, and referred the death to some other apparent cause, such as ascites, or some disease of the lungs. Nor is it to be wondered at, that non-professional persons should form such an erroneous opinion, seeing that the course of some of these fatal cases had occupied a period of four or five years, between the appearance of the primary ulcer and the fatal event. In a word, after the experience of one year's full trial of the non-mercurial plan, we have since, in our hospital practice, only employed it rarely, and generally in very mild slight cases of primary symptoms."—P. 319.

After some other observations to which we shall presently advert, Mr. Colles goes on to observe:—

"I think it must, however, be admitted, that the non-mercurial plan has not fully answered the expectations of its early admirers. All will allow, that many cases of syphilis have resisted this treatment, and were afterwards cured by mercury. Let us revert to the history of its introduction. It was introduced at a time when (in Great Britain) mercury was rather in disrepute; and when in the Peninsular army the venereal disease, treated by mercury, was making frightful havoc among the soldiery. It was tried on a scale beyond that of any other medical experiment, and under circumstances the most favourable; the patients being subjected to military discipline and restraint. In civil life it would naturally obtain a preference from both patient and surgeon; the former would be relieved from all the horrors of a mercurial course, the latter find in it a line of practice simple, plain, and safe; one that required not any extensive observation of the venereal disease, or any nice and accurate judgment in the employment of the remedies. Yet it has not superseded the mercurial plan of treatment: on the contrary, it seems now, after a trial for twenty years, to have fewer and less warm admirers. This may possibly be fairly accounted for, by observing that this plan subjects the patient, especially when the symptoms are of an inflammatory character, to the most rigid quiet, even continued confinement to bed, to repeated bleedings both general and local, to the long-continued use of nauseating medicines, to frequent purging and very low diet. So that, during the treatment, the patient is subject to all this severe discipline; and, after it, suffers a proportional degree of weakness; and, to all this, I am disposed to add relapses more frequently repeated, although less severe than those which follow after the mercurial treatment."—P. 320.

The preceding passages represent the results of the observations of practical men, not only in Dublin, but in London, and not only in these towns, but throughout the empire. How comes it that if the non-mercurial method were really the best, it has made no progress for many years, in that country where practical medicine is most successfully cultivated? This is an argument which is not easily met. It is an argument not founded on partial, but on general statistics, not merely on a few experiments in which results may be vitiated by interest or by prejudice, but on the general experience of a profession.

If there were any substantial reasons for that profession shutting its eyes to the truth, if interest preponderated greatly on one side, such an argument would, of course, lose much of its force. But in a case where interest cannot warp the judgment, where the current of human motives and feelings runs rather in favour of the new doctrine than the old, it does appear monstrously incredible that error should be preferred to truth, and that men should obstinately adhere to a practice which every-day experience demonstrates to be unnecessary, unsuccessful, and cruel. Let those who will, adhere to so repugnant a belief; we cannot, and we do not.

Of this we are quite sure—that, amongst the hospital surgeons of London, who must necessarily have extensive opportunities of observation, there is hardly one who is now an anti-mercurialist. Mr. Liston is the only exception we are acquainted with, and Mr. Liston brought his views from Edinburgh. Mr. Liston's reputation, too, is rather that of the knife, than of ordinary practical attainments. But out of these same hospital surgeons we are acquainted with several, who were struck with the force of the facts detailed by the non-mercurialists, and who, in consequence, tried the antiphlogistic method. They have abandoned it because they found that on the whole it did not answer, and was inferior to the mercuial. In the Lock Hospital, of London, the former plan was adopted, and was given up for the same reason.

It is to be regretted that these experiments have not been conducted in so satisfactory a manner as they might have been. Surgeons having convinced themselves of the fallacy of the conclusions of the anti-mercurialists, have not taken the trouble to collect and to arrange the data which might numerically convince others. Hence the absence of those positive statements on the part of the mercurialists, which play so imposing and seductive a part in the pages of their adversaries. No doubt, there are some other reasons for the absence of statistical facts, but we fear that the principal is that apathy on scientific questions so conspicuous in this country, amongst all classes of medical men.

We believe, then, we are not far wrong in pronouncing that the common experience has decided against the non-mercurial method as one of general application. But we are sure that the same experience has decided in its favour as one of partial application. It would be the height of injustice to deny to the anti-mercurialists the merit (no slight one), of having mitigated the mercurial code —of having disabused the minds of the profession of the erroneous notions formerly so prevalent, with respect to the irremediable character of syphilitic symptoms by any but mercurial remedies—of having laid the first stone in the work of distinguishing the effects of the venereal poison from those of mercury, and the consequences of either, singly, from the joint operation of both. If the labours of these gentlemen have done this, which we are certain that they have, they have done much for science, and still more for humanity. We seldom see the mutilated countenances, the ulcerous skins, the crippled limbs which formerly constituted the too frequent disgrace of science and horror of society. The diseases of the bones, more particularly, have decreased, and the phagedænic ulcerations both primary and secondary, are comparatively rare, and, when present, are usually produced by obvious general causes. For all this, we repeat, that we must thank the anti-mercurialists.

But it is rather indirectly than directly that this good has been effected—it has not been by adopting the anti-mercurial, but by modifying the mercurial treatment. In this view, Dr. Colles coincides.

> " We must acknowledge," he says, " that the profession is highly indebted to those who have lately introduced the non-mercurial plan of treatment; for we have now not only acquired a second line of treatment for venereal cases, but, what is of the highest value, we have been released from an inveterate and deep-rooted error—from an unfounded conviction that the venereal disease could not be cured by the innate powers of the system, unless aided by mercury. I need not add, that all the opinions and practices consequent on this prejudice have been subverted."—P. 319.

It is obvious, that the question of the superiority of one method of treatment to another, and particularly in such a case as the present, is not to be determined by argument but by fact. We have not therefore indulged in abstract or theoretical considerations, but simply balanced the evidence on one side against that of the other. The anti-mercurial evidence is very explicit, very direct, and, apparently, very strong—the mercurial is less direct, less explicit, and, consisting of the sum of general opinion, its cumulative strength is less capable of condensation and of demonstration. For our own parts, we must own that our experience has gone against the anti-mercurial method—that, so far as we have been able to judge, secondary symptoms have been frequent after its employment —that it is tedious at the best—uncertain in most cases—and unsuccessful in many. Like Dr. Colles, we have witnessed instances, where the patients have gradually declined and sunk from phthisis or from other visceral affections, and in which a candid review of the symptoms seemed obviously to refer them to syphilis, uncontrolled by mercury. In short, so far as our means of reasoning on facts will carry us, we are distinctly of opinion that a mild and a judicious employment of mercury, is the most successful mode of treating syphilis which has yet been discovered.

But perhaps there is no case in which more knowledge and more judgment is requisite, than in the application of mercury to venereal symptoms; and, perhaps, also, there is none, in which less knowledge and less judgment are too generally exhibited. Few, very few, either do or can study the venereal disease scientifically. The constitution of our hospitals, where alone medical men, young or old, can really become acquainted with it, seriously interferes with that study. Yet no man, from the chemist's apprentice upwards, seems to hesitate, for an instant, to treat a complaint which he must be conscious that he does not understand, or to exhibit a remedy which may do so much good or so much harm, just as it is appropriately administered or not. A singular and an unfortunate state of things.

Syphilis is not a simple series of phenomena, one of which has to the other a constant, and therefore a determinate relation, but a collection of symptoms which differ in appearance, in course, and in consequences. To increase the difficulty which must necessarily attend the study of such a disease, some of those symptoms are common to other conditions of system, besides the syphilitic. The phenomena of cachexia, for instance, are similar, whether that has resulted from the venereal poison, from mercury, from both conjoined, or from other causes. There is still another source of confusion. Syphilis is seldom allowed to run its course, unaltered by active treatment of some sort. From the operation of these circumstances, we are imperfectly acquainted with what Dr. Colles not inaptly terms the "natural history," of syphilis, and this imperfect acquaintance on the part of otherwise well-informed surgeons degenerates into very lamentable ignorance on that of too many others.

In order that mercury should be judiciously applied to the treatment of this complaint, the following facts must be determined :—1, the natural course and characters of syphilitic symptom ; 2, their modifications from the great constitutional diatheses, &c. ; 3, the effects of mercury upon the system ; 4, the effects of mercury upon the syphilitic symptoms, and the modifications of those effects by the disturbing circumstances of diet, season, and diathesis ; 5, the effect of other remedies and modes of treatment ; 6, the phenomena of those disorders, which, however induced, resemble syphilis, their discrimination, and their management.

It is almost evident, *ex necessitate rei*, that these circumstances should be determined before so grave a malady as syphilis *may* be, is treated by so powerful a remedy as mercury is. Yet how many practitioners, medical or surgical, have taken the trouble to resolve any one of them, and how few have hesitated to subject the disease in its worst and most complicated forms to a bold and hazardous empiricism ? We leave the answer to our readers.

It might appear unnecessary to insist on a proper understanding of the *modus operandi* of mercury. Every student would almost feel affronted at the supposition that he did not know it thoroughly. Mercury, he would say, acts upon the liver, the skin, the salivary glands ; and it exerts its specific action against syphilis. All this is very scholastic, but very superficial. If the same student were asked—"for what symptoms of syphilis is it useful, and for what injurious—how do you know when it is curing and when it is likely to aggravate the malady—what principles have you laid down for your guidance in its exhibition or its suspension ?"—if asked we say such questions, most students and far too many men in practice would return but an unsatisfactory reply.

In an article on the venereal disease, published some four or five years ago, we remarked :—"we apprehend that the blind confidence in specifics is rapidly diminishing, and certainly the treatment of syphilis by its specific, mercury, is one of the most difficult problems in experimental medicine." To those sentiments we still adhere, but the case of mercury is a remarkable instance of the influence which a name exerts on the minds of the majority of men. The belief in its specific properties has been a damper on rational investigation, and mercury has for centuries been blindly administered, under circumstances the most opposite, and conditions the most unfavourable, simply because, being a specific, men would not give themselves the trouble of inquiring when its specific properties were best exerted, or how. The following observations by our author on this subject are so judicious that we quote them :—

"Hitherto, and indeed at this very day, surgeons have been very unreasonable in their expectations of the powers of mercury. No doubt many weak minds, misled by a name, have thought, if they administered mercury, which is considered a specific, they must cure the venereal disease. Yet it is strange that men have dealt more justly with other specifics : thus Peruvian bark is looked upon as a specific for the cure of intermittent fever ; and it will, if judiciously administered, succeed in a great majority of cases of this disease ; but still all must allow, that this specific may not only not cure, but may aggravate this disease, and even induce others of a more dangerous nature—if, for instance, it be given when the stomach and bowels are loaded; the same unfortunate result will also follow its use, if it be given at an improper period, *ex. gr.* during the paroxysm. Or, again, if it be directed in doses unfit in point of quantity, it must be acknowledged that it has failed; thus if given in very small doses, it will prove unequal to arrest the progress of the disease; or, if given in excessive doses, it will derange the stomach, so that this organ can no longer retain it. I need not add, that this specific must also fail if it be administered when the constitution has been much broken down, and when a material derangement of structure, in any important viscus, has been induced by the long continuance of the intermittent fever. Now when we come to recollect that the intermittent fever is a disease pursuing a single and regular course, we must see how much more easy it is to lay down plain and simple rules for its treatment, than we could do for a disease so complicated as syphilis is. Again, although Peruvian bark is in intermittent fever, and some few other diseases, an useful and effective remedy; yet we know that it is not possessed of such active powers over the animal body as mercury is; and, therefore, that when mismanaged, it will not be productive of as much mischief. Let us not impute to mercury more evils than those which really belong to it: let us draw a distinction between the judicious use of this powerful medicine, and the mal-administration of it. When we recollect how very universal the venereal disease is, how very numerous its symptoms in every one of the stages of this disease, how strangely these symptoms are modified by the habit of the patient, or by accidental circumstances—*ex. gr.* by inflammation; when we call to mind the astonishing powers of this medicine over the animal economy; and when, in addition to all these considerations, we reflect upon the immense number of injudicious, ignorant, uneducated persons, who fearlessly and constantly venture to undertake the treatment of syphilis by mercury, surely the wonder should be that it has not done infinitely more mischief in such hands."—P. 322.

As we wish to disseminate as correct notions as possible on the subject of lues venerea, we shall pursue, as methodically as circumstances will permit, the plan at which we have hinted, and, as well, as we are able, exhibit the course and characters of the disease—the effects of mercury, and the principles which should regulate our administration of it—and, finally, we shall touch on those debateable cases which are grouped under the generic designation of cachexia. It would be out of the question, attempting to embrace so many, so difficult, and so important topics in one, or indeed in two articles, and we shall make them the subject of as many as they seem naturally to require, in successive numbers of this Journal.

1. NATURAL HISTORY OF SYPHILIS.

We shall commence, adopting the phraseology of Dr. Colles, with the natural history of syphilis. He devotes to it the first chapter in his book.

It may readily be granted, that morbid, like healthy action, has its laws. The phenomena of other diseases communicable by inoculation would induce us, *à priori*, to suppose that syphilis, like them, must naturally have a tendency to follow a definite course. But this has not, in the case of syphilis, been ascertained with the same precision as in that of small-pox, measles, or scarlet fever. The reasons must be plain. Those complaints run a rapid course, and when slight require no medical treatment, when severe are little modified by it. The opportunities for watching them, from their commencement to their termination, are consequently numerous. But syphilis pursues a very slow course, and it is much altered by medicine. From the former circumstance, patients are lost sight of, or they become disgusted if they make no progress, and obtain other advice—from the latter circumstance, mercury is either voluntarily or compulsorily given, and the opportunity of watching the progress of the disease is lost. These considerations not only explain the imperfect acquaintance we have yet attained with respect to the characters, course, and consequences of syphilis, but they explain also the difficulties that still attend its study.

Dr. Colles remarks, that:—

"We meet with nothing like a scientific description of the venereal disease in any of the earlier authors; in their writings we find only a mere enumeration of various local symptoms, without any arrangement or reference to their order of succession, and without any account of the course which any one symptom pursues through its different stages. Strange as it must appear, yet it is most true, and has proved most unfortunate for our science, that, prior to Mr. Hunter's treatise on the venereal disease, the profession possessed no systematic account, no accurate description either of its primary symptoms, or of the period or the order in which its secondary effects usually occur. This invaluable treatise poured a flood of light, not only on the natural history of this disease, but also on its pathology and treatment. It was Hunter who first demonstrated with clearness and precision that secondary symptoms succeed the primary at an interval of six or seven weeks, and that they are generally preceded by an eruptive fever, which is ordinarily of an inflammatory type: he also described the third order of symptoms; and all this he has done with an accuracy and fidelity which the subseqnent experience of the profession has amply confirmed.

"It is much to be lamented, that Mr. Hunter did not prosecute his inquiries still further; that he did not, for example, trace the full progress of secondary symptoms, or mark their natural tendency to amend, and then again to relapse, each unfavourable change being preceded by constitutional disturbance, and that he has omitted to notice the probable period of time which these symptoms occupy from their origin to their acmé, and thence to their decline. Whether these omissions proceeded from want of time, or from his having adopted the opinion that the venereal disease 'had no tendency to cure itself, or that the constitution was unequal to the cure of this disease,' is now of little moment. But does it not appear strange, that subsequent writers have not made some effort to supply these deficiencies?"—P. 4.

We cannot say that we participate with Dr. Colles in his admiration of Mr. Hunter's Treatise on the Venereal Disease. That treatise exhibits in the most striking manner the vices of his mind—an insatiable thirst of speculation, and the contradiction or evasion of very obvious facts when they interfere with his views. Bad as Mr. Hunter's style of reasoning is on too many occasions, it is peculiarly so in the Treatise on the Venereal. We grant that it should be compared with what had gone before it, and that, when put into such a scale, it will be found to possess very weighty merits. But, taking it as a whole, we repeat that it is one of the worst of the treatises of Hunter. Take, for example, the following passage, in which Mr. Hunter denies that a child can be infected by the milk of an infected nurse.

"The breath and sweat are supposed to carry along with them contagion, the milk of the breast is supposed to be capable of containing venereal poison, and of affecting the child who sucks it; but there are several reasons which overturn these opinions. First, we find that no secretion is affected by this poison, excepting where the secreting organs have been previously affected by venereal inflammation or irritation, or its specific mode of action. Again, if they were contaminated so as to produce matter similar to that of an ulcer in the throat, such matter would not be poisonous, nor possess a power of communicating the disease, as will be explained more fully hereafter."—P. 384.

The point at issue is either a fact or it is not. If it is a fact, theoretical considerations will not upset it—if it is not a fact, they are scarcely requisite. What does Mr. Hunter do? He does not look at the question as one of fact at all, but he objects to it an unintelligible and absurd argument touching the secretions—an argument to which this answer may at once be given, that we know too little of the matter, to admit of any *petitio principii*, or to receive any analogical consideration as conclusive.

As a pendent to this sample of Hunter's mode of reasoning, we may cite another passage a little farther on:—

"It is also supposed that a fœtus in the womb of a pocky mother may be infected by her. This I should doubt very much, both from what may be observed of the secretions, and from finding that even the matter from such constitutional inflammation is not capable of communicating the disease. However, one can conceive the bare possibility of a child being affected in the womb of a pocky mother, not indeed from the disease of the mother, but from a part of the same matter which contaminated the mother, and was absorbed by her; and whether irritating her solids to action or not, may possibly be conveyed to the child, pure as absorbed; and if so it may affect the child exactly in the same way it did or might have done the mother."—P. 385.

Here, again, we see a question of fact decided by speculation, and either confirmed or opposed by the most vague analogy and most unconditional hypothesis. We have never been amongst the extravagant admirers of Mr. Hunter, and, however heterodox it may appear, we must say that we look upon his principal merits as those of an anatomist and physiologist. A man of little original education, and imbued with that contempt for learning which is usually characteristic of vulgar ignorance, his writings frequently display the substitution of terms for ideas, and of words for things, and afford a pregnant instance of the disadvantages under which a strong mind labours, when undisciplined by sound education.

We do not then lament, with Dr. Colles, that Mr. Hunter did not pursue the subject farther. Pathology had made so little advance, and Mr. Hunter's mind was so constituted, that we think no great good would have come of his labours. He would probably have plunged deeper and deeper into speculation, and the authority of his name would have rivetted many serious errors on the minds of the profession; for, dogmas consecrated by authority are more difficult of removal than ignorance.

We believe that it will be of little service to pursue Mr. Hunter through his hypotheses. What good he really effected has become public property, and is incorporated with prevalent doctrines—what errors he committed are either known to be such, or will be discarded with the advance of knowledge, and must be attacked as substantive evils. We dismiss, therefore, Mr. Hunter's work with this reflection, that although it should be studied by every well-informed surgeon, it is not adapted for those who are not practically conversant with the complaint of which it treats. It should rather enter into a course of reading on the history of the venereal, than form a part of the practical study of it.

Dr. Colles describes what he has actually ascertained of the progress of syphilis, when unchecked by the action of mercury. It does not amount to much, because, as we have already explained, the obstacles to our attaining precise information are almost insuperable.

"I have observed," he says, "that when the local symptoms have become fully established, which is probably in two or three weeks after they make their appearance, they then become stationary, and the constitution is relieved from the febrile disturbance. In this quiescent state the symptoms may remain for about three weeks, they will then show a strong disposition to amend, and sometimes they will proceed so far, as to impress the surgeon with a hope, and the patient with a firm conviction, that he is about to get perfectly well. But this illusion, having lasted for two or three weeks, is dispelled in general by a fresh attack of eruptive fever, and by an eruption or sore throat, although sometimes other symptoms (iritis for example), be added to those under which the patient had been previously suffering. How long the disease might continue in this condition of alternate improvement and deterioration, I cannot pretend to say, as I have not had an opportunity of witnessing in the same individual more than two, or at the utmost three, of those revolutions: from what I have seen of such cases I am led to say we may calculate upon each relapse as likely to recur every third month. These remarks apply to the secondary symptoms as observed for two, three, or four of the first revolutions.

"At a later, and sometimes, though rarely, in an early stage of the disease, we find a somewhat different process ushering in a new attack; thus we sometimes observe that the patient, who during the four or five preceding weeks had been improving in flesh, colour, appetite and strength, now begins to exhibit a different aspect; his countenance alters considerably, it becomes sickly, his complexion assumes a waxen hue, and he evidently loses flesh from day to day, and all this takes place while the patient himself is not at all aware of the change, and is still less suspicious as to its cause. In some time, however, the patient complains of night sweats, want of sleep, loss of strength and declining appetite, so that in the course of two or three weeks he is reduced to a state of great weakness and emaciation: this downward course proceeds steadily until a fresh order of symptoms appears and becomes established.

"I must here remark that I have repeatedly observed these newly appearing symptoms to be, as it were, a repetition of those that preceded them: thus, for example, a patient may have had a papular eruption which remained stationary for two or three weeks, then began gradually to decline, so as to lead him to hope he was about to become totally free from it; but this eruption having faded to a certain extent, has then become stationary for two or three weeks, and the general health has improved; at the end of this time, however, the health again begins to suffer in the manner above described, nor does it cease to decline until this new train of symptoms has become for some time established. More commonly, however, this long-continued wasting is followed by some new symptoms, often by those of the third order, succeeding the repeated renewals of secondary symptoms. After an attack of this lengthened nature we seldom if ever observe a distinct eruptive or premonitory fever appear in this patient; and I may also add that the local syphilitic symptoms cease to present their characteristic signs as strongly marked as heretofore. Thus it would seem as if each eruptive fever, or rather each succeeding attack, brings the constitution into a weaker and weaker state. In the very advanced stages of the venereal disease we do not see those periodical changes; the constitution then appears unequal to any struggle, so that one continued and increasing state of debility, with slow fever and great emaciation, are conjoined to the local symptoms, while the latter also are but little disposed to undergo any change, except a slow and gradual deterioration: thus, I have sometimes, though rarely, seen a tubercular eruption, combined with pains of bones and joints, continuing during four or five years, and undergoing no material change, being at one time a little better, and at another a little worse."—P. 10.

This description very nearly represents what we have ourselves observed. In the cases which we have witnessed, the following circumstances were more or less constantly present.

1. The primary sore has usually, after some weeks, healed, and has, in the majority of instances, left in its site an indurated and a reddish-coloured cicatrix. In some instances this cicatrix has shown a disposition to be covered with a slight crust or scab, the consequence of superficial excoriation and secretion. In other instances, the cicatrix has re-ulcerated once or oftener and at uncertain intervals. In women, it is not uncommon for a succession of sores to form. These, if on the labia, are usually succeeded by indurated cicatrices—if deeper the induration is much less perceptible. We would observe that, so far as our experience has gone, it is the rule for the primary sore to heal in men, and not to heal in women.* The reason *may* be, that men usually apply dressings of some sort to their sores, and that women commonly do not. The heat and moisture and lodgment of discharge are greater too in the latter than in the former.

2. From three weeks to three or four months after the distinct development of the primary sore, pyrexia and constitutional disturbance have ushered in either ulcerations of the throat, or papular, tubercular, or scaly eruptions on the skin; not unfrequently both ulcerated throat and eruptions. The usual characters of the ulceration of the throat have been—the tonsils and palatine arches tumid and red, and the ulceration itself yellowish and rather deep. The scaly eruptions (psoriasis) appear to us to have been the most frequent.

3. Irregular attacks of eruption, generally preceded by some pyrexia, and ac-

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* We are speaking of cases in which mercury has not been exhibited, and in which no active treatment has been pursued.

companied by pallor, and obvious ill-health, have continued for a variable time. Other symptoms may occur about this period. The patient may be affected with iritis—or with secondary ulcerations of the rectum—or with condylomata—or with venereal inflammation of the testis. It is generally about this period, that mercury is perforce resorted to, and here, consequently, we find it difficult to pursue the effects of the simple venereal poison.

4. Affections of the fibrous and osseous tissues are the next in order of occurrence. Not that the patient must necessarily have gone through the stages of sore throat and eruption previously to nodes. We have at this moment a gentleman under our care, who has a node on the forehead, and below the great trochanter of the left femur, who had a sore which was pronounced by Mr. Lawrence to be venereal, who was prescribed mercury, but did not take it, and who has had no intermediate symptom. But as a general rule, nodes are preceded by eruptions and by ulcerated throat.

It is usually in combination with disease of the periosteum and bones, or just prior to their appearance, or about the period at which they occur, that another order of affections of the skin and of the mucous membranes is developed. Phagedænic ulcerations invade each, giving rise to frightful ravages in the throat, mouth, nose, and external parts of generation, as well as to rupia and spreading ulcers on the skin. Yet not only may nodes be unattended with these, but these may be uncombined with nodes. Both depend on a similar state of constitution, or are attended with it—a state of constitution eminently bad. It is true that such symptoms as we have alluded to, are generally seen in persons who have taken mercury to excess. But we have seen two instances, at least, in which they occurred independently of the use of mercury at all. The patients were both females, and, singularly enough, neither was conscious of any primary infection. It was this which prevented the administration of mercury.

It is probable that these are not ordinary results of the non-mercurial treatment, for whilst we constantly see them where mercury has been abused, we very seldom witness them where it has never been administered. But it must be recollected, that long before such symptoms naturally occur, the nature of the complaint has usually been rendered evident, and mercury has been exhibited.

5. We have only seen one person die with venereal symptoms absolutely unopposed by mercury. That patient was a female, and one of those to whom we have just alluded. She died of phthisis. As this became developed, the nodes under which she laboured assumed less and less importance, and ultimately were scarcely thought of.

But it would seem that Dr. Colles has witnessed more numerous examples of a fatal termination to the malady. He remarks that—

"When the disease has arrived at that advanced stage in which the general health has been broken down, and the local symptoms are so much changed as scarcely to be recognized as venereal, it is still a matter of uncertainty how long the patient (if not relieved by art) is to drag on a miserable existence, or in what manner a termination is to be put to all his sufferings. Many of its unfortunate victims are destroyed by what may be considered a continuation of the disease; but by far the greater number appear to be carried off by other complaints to which we may presume they were naturally disposed, or to which they were rendered liable by the very weakened and reduced state of their general health.

"Among the former we may mention an ulceration of the throat, which, creeping downwards, at length seizes upon the larynx, and causes a destruction of a greater or lesser portion of this organ. The lungs quickly suffer from this affection of the larynx, and the patient dies, seemingly worn out by difficult respiration, and by severe cough, with profuse expectoration and hectic fever.

"Others again are destroyed by the repeated exfoliation of the bones, frequently of those of the cranium, and sometimes of the long bones. Moreover, there are others who, having been forced by severe nocturnal pains to have recourse to opium, cannot afterwards be prevailed on to relinquish this medicine, but are rather disposed to increase the quantity of each dose. Although now almost free from the pains which had driven them to adopt this medicine in the first instance, such persons, we remark, cannot be induced to rise until late in the day; they have no appetite for breakfast, but will probably take some highly seasoned food for dinner; in the early part of the day they are quite torpid, averse to every kind of exercise; in the afternoon they seem to revive, become more animated in the early part of the evening, and are unwilling to retire to rest until a very late hour. One or two years may pass on in this manner with little apparent change; at length they sensibly decline in flesh, a diarrhœa supervenes, which is sometimes attended with sickness of stomach and vomiting, and by this they are ultimately carried off. It is remarkable that from the time these patients give themselves up to the inordinate use of opium their symptoms exhibit but slight traces of a venereal character.

"Many others are carried off by diseases which have no other connection with the original venereal affection except that by it, or rather by the treatment adopted for its cure, their system has been rendered more susceptible to the attacks of disease in general. Perhaps the greater number of such sink under attacks on the chest, such as pleuritis or pneumonia, terminating in serous effusion. Many of those who are strongly predisposed to phthisis fall victims to that disease: not a few are found to have the liver enormously enlarged, extending across the abdomen, and even below the umbilicus; this is followed by slow emaciation, and after some months by ascites and anasarca. Dysentery also at times seems to destroy some of those who have very long suffered under Syphilis, and, as might be expected, ulceration of the intestines is discovered after death.

"From this account then it is very evident that there is no certain period after the appearance of the primary disease at which death terminates such protracted cases of Syphilis. We may say that in general this event takes place between the second and fifth or sixth year."—P. 13.

This is all which it is in Dr. Colles's power to communicate with respect to the natural history of syphilis. It must be owned that the amount of positive information is not great, and that much remains to be done before our acquaintance with the natural and uncomplicated consequences of the poison can be considered satisfactory. The great obstacle to our acquisition of such knowledge is the time which the disease takes to run its course, an obstacle so serious as to render direct experiments of comparatively little value. A person may be got to submit to inoculation with the venereal poison, and to suffer secondary symptoms to show themselves; but no person can be procured who will voluntarily let the latter symptoms go on to the destruction of his health, and perhaps of his life, and no surgeon could be such a scoundrel as to make an experiment to which the patient is not a consenting party. Experiments then, so far as they have gone, have done no more than establish what was partially or wholly known before, the communicability of such or such a sore, and the occurrence of a few of the earlier secondary symptoms; nor do we look to such experiments as likely in any material degree to augment our stock of knowledge. The great means of doing that will be the close and unprejudiced study of the experiments which Nature herself conducts for us, and an accurate record of the observations which we make.

Before he concludes the chapter on the natural history of syphilis, Dr. Colles examines the question of the power of secondary symptoms to communicate the venereal disease. He cites two cases in which secondary venereal ulcers were the means of infecting other parties. It is well known that Mr. Hunter not only entertained a contrary opinion, but based much reasoning on the positive denial of the fact, another instance not only of Mr. Hunter having been wrong, but of his having decided a matter of fact by *à priori* and dogmatic speculation. The point may be considered established that secondary venereal ulcerations *are* capable of infecting those favourably circumstanced for the reception of the disease; but the laws of the transmission of disease in this manner cannot be considered as determined.

The next subject on which Dr. Colles treats is the administration of mercury, that is, the principles which should regulate its use. But it would be more natural to ascertain first the characters and properties of the venereal sore, before we apply to it such a remedy as mercury. The only Chapter in which primary sores are considered is the fourth, professedly devoted to chancre. As the work of Dr. Colles is avowedly desultory, we will not quarrel with his arrangement, but pursue our own plan, and proceed to the examination of his views on the primary sore.

II. ON CHANCRE.

We cannot compliment Dr. Colles on the possession, or at all events on the display of much method in his descriptions. That logical mode of so arranging our ideas that others may with the greatest facility comprehend them, is not an art which he appears to exhibit. Yet it is an useful one notwithstanding. We will endeavour to throw together observations which are rather unconnected in the original.

1. "Although every surgeon must admit that Mr. Hunter's description of a chancre is correct, and drawn from nature, still I believe few will confine this term, or that of primary venereal sore, to those ulcers only which answer to his description. As the result of long, attentive, and anxious observation, I should say that primary venereal ulcers present an almost endless variety of character. I would define a primary venereal ulcer to be 'one which is remarkably slow in yielding to ordinary, mild, local treatment, but which is curable by mercury, and which, if not so cured, is likely to be followed in two or three months, by secondary symptoms, which again also are curable by mercury.' If then there be, as I affirm there is, an almost endless variety in chancres, how can we decide on the nature of primary ulcers, so as to pronounce some to be syphilitic, and others to be mere common sores, or simple excoriations? I reply that we are to be guided in our decision, by observing, first, that many of these suspicious ulcerations cannot be referred to any class of common ulcers, as they strikingly differ from them; and, secondly, by attending to the course which these take, when not interfered with by any stimulant or caustic application, and when treated only with some mild ointment or cold water. If under these circumstances we find that after eight or ten days such ulcers show no disposition to heal, and if, at the same time there be a total absence of any cause, such as defect in the general health, to account for this obstinate condition of the local disease, we may then pronounce them to be syphilitic. But I repeat that the local applications must have been of the mildest kind, for almost any primary venereal ulcer may be made to heal by the use of stimulating applications, applied even for so short a time as one or two days."—P. 76.

It will be observed that Dr. Colles abandons Mr. Hunter's hypothetical attempt to erect one sore, and that not *now* the most common one, into the true type and symbol of syphilis. In this, all judicious surgeons will agree with him, and the old notions connected with the Hunterian chancre are virtually exploded.

But we cannot agree with Dr. Colles that venereal sores present an almost endless variety. In their minor features no doubt they do so, but in their leading characters they are not too diversified, to refuse, under a moderate analysis, to be reduced to a few leading forms. If pressed for an enumeration of them we would name the following:—

1. The Common Venereal Sore.
2. The Indurated Sore.
3. The Phagedænic Sore.
4. The Multifarious Sore.
5. The Excoriation Sore.

It is probable that these are not essential varieties quoad the nature of the poison, but rather, accidental modes of action, determined by numerous circumstances. A common sore, for instance, may become indurated, or it may assume the phagedænic character. But, still, for practical purposes, it is useful to give a substantive character to ulcers which present very marked features, and require very marked varieties of treatment. It is foreign to our purpose to go into this subject at present, but we may observe that a variety of considerations hang by it, and that no simple view of the phenomena of venereal sores will either explain them, or be consistent with the truth.

It is obvious that Dr. Colles's definition of venereal sores is objectionable in many points of view. This is so obvious, that we shall not insist on it, particularly as we care little about such things as definitions. But his directions for distinguishing venereal sores are of more practical consequence. The great criterion is their indisposition to heal. But that is a criterion which requires time, valuable time both to the patient and the surgeon. It is very well to wait for a week or a fortnight in a hospital, but private patients cannot or will not submit to such an ordeal, and the surgeon who should wish them generally to submit to it would probably find them evince a marked preference for some more decided rival. The fact is that the only mode of distinguishing venereal sores is first to become acquainted with their leading characters. Such knowledge can neither be acquired nor can it be conveyed by words. It is useless to attempt either. All that can be done by description is this—to classify venereal sores in the most natural manner—to describe as accurately as possible their respective characters—and finally to give some general hints which may assist in forming a diagnosis that essentially rests on a precise and a practical acquaintance with the disease. It is astonishing how quickly a surgeon who has that practical knowledge may pronounce, and accurately too, on the character of the vast majority of sores presented to him, at a very early stage of their existence.

We agree to a great extent with Dr. Colles in the following remarks :—

"It often happens that young men affected with primary sores, will first treat them for one or two days with stimulant washes, and then apply to a surgeon; he directs the mildest applications, and finding the ulcers to heal under this treatment without any hardness remaining, concludes that they were not venereal; the appearance of secondary symptoms, however, in a few weeks afterwards, proves the error of that opinion. I have known a few such cases, in which the surgeon has felt so confident in this opinion, that he has allowed the patient to marry in a short time after the healing of the sores. I need not attempt to describe the state of his feelings when called on to treat the wife for primary venereal sores!! I am therefore anxious to impress this as a very important rule, not to pronounce any ulcer on the genitals, as of an innocuous nature which may have healed under the mildest applications, if at any time, even during the short space of one or two days, it have been treated with stimulant applications."—P.76.

The early use of caustic has been recommended by some surgeons, especially by Mr. Wallace. We think it injudicious practice upon two accounts:—first, it interferes with the natural progress of the sore, and consequently with one important means of regulating our exhibition of mercury; secondly, it is apt to occasion much irritation, and the undesirable consequences which may ensue from it. Caustic at a later period is open neither to the one objection nor the other.

2. "I deem it right," says Dr. Colles, "here to notice an appearance in chancres healed by local means only, which we occasionally meet with in cases where mercury had been injudiciously employed,—an appearance which I have never, except in one instance, seen. The appearance I allude to is a remarkably hard lump, as large as a filbert, situated on the prepuce in the site of the original chancre, the skin which covers it is of a peculiar purple colour. In one instance, that of a young gentleman, whose chancre had been healed for three or four weeks, this appearance was attended with most alarming symptoms, viz. extreme emaciation, thirst, loss of appetite, and profuse night sweats. The suddenness with which he had been reduced to this state, from a tolerably full habit of body, and from apparently excellent health, excited in my mind great apprehensions for his safety, especially as some of his family had died of hæmoptysis succeeded by phthisis. I never saw any case in which the venereal virus acted in a manner so like to what we might fancy should be the effect of a slow poison on the system. Yet by means of a mercurial course gradually raised from very small doses, and continued for a longer period than usual, the hardness and discoloration were removed, and he was soon restored to good health,

which he still enjoys. This case occurred many years since; at the time when the non-mercurial treatment was first introduced into Dublin. In all the other instances of this large purple tumor, where it has formed after the healing of a chancre by local means only, I have seen secondary symptoms follow in the same time, and pursue much the same course, as when these have succeeded to chancres which have been only imperfectly cured by the injudicious administration of mercury."—P. 92.

This is an allusion, but it cannot be looked on as much more, to a subject of much practical importance, the condition of the cicatrix of a venereal sore. We are too much crippled for space at present to consider it at large, and we merely quote this passage, which, so far as it goes, deserves attention.

Dr. Colles alludes to those varieties of venereal sore, which depend on the peculiar structure of the part where they are situated. No doubt the nature of the part exerts an influence on the characters of the sore, and this is one element in the causes of the diversity of forms which sores assume. But we are not sure that it is so important an element as Dr. Colles's remarks would lead the reader to suppose. We will allow Dr. Colles to speak for himself.

3. It is scarcely necessary, he observes, to say that the quantity of hardness is much less in chancres situated on the glans than in those on the prepuce; but still a degree of hardness sufficient to guide us in the treatment attends even the former.

No doubt some induration attends the venereal sore on the glans. But Dr. Colles takes no notice of several peculiarities attending such a sore. In the first place granulations are generally tardy, and such a sore not unfrequently assumes the phagedænic character. In the second place, such a sore scarcely ever fungates, the absence of loose cellular tissue beneath the compact chorion, interfering, we presume, with the ready formation of loose granulations. In the third place, the cicatrix is generally depressed, rather than elevated, and the loss of substance is seldom properly repaired. Even after the lapse of years a hollow is seen to mark where the sore was.

"There is a form of venereal chancre on the edge of the prepuce, of which I do not recollect ever to have read any description. The account we receive from the patient is, that he thinks he tore himself in the act of connexion; we see that the lacerated part shows no disposition to heal, but is not painful or swollen, and appears in the form of a fissure. When the prepuce is partly retracted, this fissure appears as if it had been divided by a long incision; the edges are hard and deep, not swollen or inflamed, and yielding scarcely any discharge; it is not at all painful, unless when an attempt be made to retract the prepuce. This is certainly a primary venereal ulcer, its peculiar characters may probably depend on the infection being engrafted on the torn surface; it requires the use of mercury to the same extent as does the circular Hunterian chancre: nor does it need any peculiar local treatment."—P. 93.

This form of sore is very common in the London Lock Hospital. It not unfrequently coincides with gonorrhœa—almost always occurs in persons who have a long prepuce and a tendency to natural phymosis—but, so far as we have seen, is not necessarily preceded by excoriation. It is, undoubtedly, a form of venereal ulceration, and we have seen it followed by ulcerated throat, and by papular, tubercular, and scaly eruptions. Phymosis is not uncommonly occasioned by it.

"We sometimes see the edge of the prepuce beset with five or six circular ulcers; these, if left to themselves, will first granulate, then become fungous, and finally will heal spontaneously. The form as well as the slow and indolent character of these ulcers might dispose us to conceive that they were syphilitic; the appearance, however, of several of these at once, along the margin of the prepuce, and their being destitute of any hardness, will serve as a criterion whereby we may make the distinction. These ulcers may always be cured by suitable local treatment alone; I have never seen them take an unfavourable turn. Sometimes there may also be present in conjunction with these, others of a true venereal character, and for which mercury must be administered; we shall then have an opportunity of remarking that this medicine exerts no influence on the ulcers at the extremity of the prepuce. Sometimes this circle of ulcers is accompanied by a single one of the same character far within the prepuce."—P. 94.

We feel some hesitation in coinciding with Dr. Colles in his opinions on this form of ulceration. The multifarious, fungating ulcers on the prepuce, are, so far as our experience goes, venereal. Dr. Colles gives no marks by which we may suppose that they are not so, save the fallacious one, that they will *finally* heal spontaneously. They will do so finally, no doubt, and so will most of the true venereal ulcers. But we are sure that in the majority of cases they will take a very long time to heal, and that if allowed to do so spontaneously, secondary symptoms will in certain number follow. The fact is, that this form of venereal ulceration is rather a peculiar one, and we have made it the subject of a distinct essay, in which we have described its characters and progress, pointed out what seems to us the most successful mode of treatment, and alluded to some of its natural consequences.

Dr. Colles remarks that the non-venereal are sometimes mixed with true venereal ulcers, but he gives us no criteria by which we may distinguish them, and it is singular that two forms of sore, one venereal and the other not so, should be running abreast, in so friendly a manner. One would imagine that the discharge of the venereal sore would at once contaminate the non-venereal one. We fear that there is on this, as well as on other occasions, rather too much looseness in Dr. Colles's descriptions.

6. "When a chancre is seated close to either side of the frænum, we find it invariably happens that the ulceration passes through this process of integument, at first making an opening through it, and in a few instances the ulcer has healed, leaving this hole; but in the majority of cases the ulceration goes on until it has divided the frænum entirely, then each side of the ulcer heals separately, the part on the glans showing a tendency to advance slowly, making a superficial groove in the anterior part of the glans. The only direction to attend to in the management of these chancres, is to cut through the frænum as soon as the ulcer has once perforated it; for we shall generally find when this has not been submitted to, that the sore will not assume the granulating state, until the ulceration has completely divided the frænum. The posterior part of the ulcer having generally the larger part of the frænum, will require repeated touches of caustic to prevent it from healing with a large knob, while the anterior part will be benefited by the black wash or some other gentle stimulant. Sometimes the frænum (having been divided by the surgeon or by ulceration) presents a furrow, showing that the part is composed of two layers of cuticle; this may be a little more tedious in healing."—P. 94.

We cannot look on this as an adequate account of the perforating ulcer of the frænum, a very marked variety of the common venereal sore. The ulcer in question runs a very peculiar course, always, or almost always, perforates the frænum, and destroys the portion of it which is rendered free by the perforation, and not very unfrequently assumes the phagedænic character. We have seen in private practice, during these last six months, five cases of it, and of those, two had taken on the phagedænic aspect, and creeping or "herpetic" character. It would occupy us far too long, for our space is now exhausted, to go into the history and treatment of this sore. Suffice it to say that it requires the cautious and the long-continued use of mercury. In one instance in which mercury was imperfectly administered, we saw suppurating bubo in each groin, ulcerated (yellow) tonsils, and tubercular eruption follow. The case was that of a medical student.

7. "A chancre sometimes, though rarely, is seated at the very orifice of the urethra; in this situation it is always slow in going through the different stages preparatory to healing, and it too often assumes an eating disposition, passing all round the orifice; there is one very serious ill consequence, which always results from this, namely, that in some time, perhaps in one or two years, the patient will suffer severely from symptoms of stricture. In treating such a case, we should use every effort to prevent the extension of the ulceration to the entire

circle of the orifice, for unless it entirely encircle the orifice, contraction will not follow; this can with certainty be accomplished by touching the ulcer as soon as it begins to extend, with the colourless muriate of antimony, or with nitric acid: these applications are no doubt severe, but the evil they avert is one of great magnitude; for I will venture to assert that of all forms of stricture, this is one most apt to recur; indeed it does not in any instance admit of a cure by the ordinary treatment of strictures.

"I am happy to say that I have lately discovered a mode of treating this stricture which has proved eminently successful in the few cases in which I adopted it. This plan of treatment consists in this simple operation.—Having detached the skin from the end of the urethra, to which it is generally intimately adherent, I divide the urethra below, to the length of more than half an inch. I raise the mucous membrane from each lip of the incision, then cut away a portion of the bared corpus spongiosum, to such an extent as will allow the raised mucous membrane to cover the cut edge. I stitch down this membrane upon the corpus spongiosum; and thus having covered each lip of the wound by mucous membrane, I have effectually guarded against the possibility of re-union of the lips of the wound, or subsequent contraction of the opening. The opening of the urethra thus produced, is of course of a size larger than natural."

This is a valuable suggestion, and we shall adopt it in the first case, of an appropriate description, which presents itself. As Dr. Colles observes, the stricture produced by ulceration of the orifice of the urethra is of a very troublesome description, but it does not always succeed such ulceration. We have at this time a gentleman under our care, in whom such ulceration has healed without any tendency to constriction, and in another gentleman, labouring under stricture of the membranous part of the urethra, a venereal ulcer at its orifice has enlarged *that* materially.

8. "Of late years, notwithstanding what Mr. Hunter asserts to the contrary, I am confident that I have seen cases of chancre seated altogether within the urethra; such cases have been frequently mistaken for mild gonorrhœa, and have for weeks together been treated as such: in some of these cases the surgeon has not been apprised of his mistake until the ulceration has actually laid open the forepart of the urethra, or has extended forwards to its orifice, so as to become visible. A very little attention will enable us to discover the real nature of this case, even in its earliest stages; for we can externally feel a hardness in that spot of the urethra where the chancre is seated, and the symptoms of gonorrhœa are so slight, that this alone should excite our suspicion, and induce us to search for a chancre in the urethra."—P. 96.

Nothing can be more true than the preceding observations, and nothing can be more corroborative of what we have asserted respecting Mr. Hunter's work on the venereal. It did not agree with his speculative views to admit of a venereal ulcer of the urethral mucous membrane, and consequently he denied its existence; in other words, he decided, as he often does, a question of fact not by reference to facts, but by theory—the most illogical and unphilosophical method of argument possible. It hardly, we imagine, requires additional evidence to prove that Mr. Hunter's mind, much as it has been lauded, was not imbued with the spirit of inductive reasoning, for such a mental vice as we have mentioned, is incompatible with its very principles.

We have ourselves, within the last four years, seen three distinct cases of venereal ulcer within the urethra. Of these, two were in the Lock Hospital, and were out-patients of our own, and one was a private patient. In the first case, we mistook the disease for gonorrhœa, until the occurrence of ulcerated tonsils, and syphilitic psoriasis, drew our attention more particularly to it, and led us to make a closer examination of the urethra. In the other two cases, the same mistake had been made by other surgeons—in the private patient by a very eminent one. Those two patients had secondary symptoms too; one laboured under stains and desquamating papulæ, the other under pityriasis with psoriasis, and ulceration of the tonsils.

Here we pause. In our next number we shall pursue the subject, and we hope to offer some observations which may be of service to such of our readers as have not enjoyed sufficient opportunities of studying this complicated malady.

PHYSIOLOGY.

A NEW MODE OF INCREASING THE HEART'S ACTION

FOR RESTORING THE POWERS OF LIFE IN PERSONS APPARENTLY DEAD FROM DROWNING, OR IN SYNCOPE.* By JOHN HYSLOP, Esq., Surgeon.

SOME years ago I had occasion to bleed a lady, and abstracted upwards of thirty ounces of blood, whilst she was in bed. About three hours afterwards, on attempting to rise, she fainted. The family being in great alarm, I was sent for, and when I got to the bedside, I found that another practitioner was in attendance. He said to me "your patient is dead." The basin of blood remained still on the table, and I was in great uneasiness on account of the lady's condition, and I confess I also dreaded the effect of the largeness of the bleeding. Spirits of ammonia had been sent for, but deglutition was suspended; a flexible tube was sent for, and I became very much alarmed.

In this state of anxiety of mind, and without having any precise purpose in view at the time, I desired her husband, who was almost frantic, to assist me in raising up her head and shoulders from this supine position. She gradually resuscitated, and in three or four minutes she became quite revived. I again visited her late at night, when she said she had great pain in her arms, and she thought that her husband and I had grasped her arms too tightly. On returning home and reflecting on the circumstances of this case, I concluded that pressure (quite unintentional, however,) on the brachial arteries by impeding the circulation and causing congestion, must have excited the action of the heart.

On making the experiment, I found, that by pressing the brachial artery, the pulse, though it gradually beat faster and faster, continued still small and thready, and when the pressure was removed, it became very full, and continued so for some time.

I can at any time raise the pulse in this way. On repeated trials, I find that the pulse being first felt so as to ascertain the progress of the pressure, it runs nearly thus:—

In 3½ minutes it rises from 68 to 74
5 - - - 68 to 78
7 - - - 68 to 80

So that in seven minutes, twelve beats in the minute can be gained. Is there any medicine known which can do this in so short a time? How valuable, then, is this fact!

It was only yesterday that an eminent anatomist called on me. He doubted the fact. I convinced him by stopping the circulation in his right arm, when in nine minutes his pulse rose to fourteen beats in the minute. I measured his pulse, it was,—

75, and in 3½ minutes it rose to 83
in 5 - - - 85
in 8½ or 9 - - 90

As the laws in the animal system sometimes call in the act of pressure, I conclude that to imitate nature in that respect, and in other instances of disease, especially in such as proceed from great exhaustion, they may be (after the knowledge of this fact) successfully treated.

Before I conclude, I have only to say, that if the tourniquet was known formerly to be of use in disease, I can surely affirm it is not used at the present day, nor for the thirty-six years that I have been in practice in London, either at public hospitals or in private practice.

If the patient is thin and delicate, the force of the operator's thumb will be sufficient to produce the necessary pressure. But if the patient be more muscular, a tourniquet must be applied. It may be objected to by saying, "but where is a tourniquet to be had?" A simple and effectual one can be made of a neck-cloth or pocket-handkerchief, and a bit of stick, a pencil-case, or the handle of a pocket-knife.

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* From Dr. Wardrop's Work on Diseases of the Heart.

I have, on this occasion, pointed out the good effects to be derived from this practice, as regards a sudden stimulus to the heart when in cases of suspended animation; in cases of persons apparently dead from drowning and in syncope. But much is left to be said of its use in various other instances, where the sanguiferous system requires quick attention, and a remedy fortunately always at hand.—*Edin. Med. and Surg. Journ.*, *Jan.* 1838.

HISTORY OF A FEMALE WHO HAS FOUR MAMMÆ AND NIPPLES.

BY ROBERT LEE, M.D., F.R.S.,

Physician to the British Lying-in Hospital, etc., etc.

The individual in whom the above-mentioned peculiarity presented itself was 35 years of age, and was prematurely delivered of a still-born child on the 21st of July, 1835. The mammæ having afterwards become excessively painful and distended, she was compelled most reluctantly to permit the author to make an examination of them, by which it was discovered that she had two mammæ and two nipples on each side. The inferior or pectoral mammæ were fully developed, and in the natural situation; and their nipples, areolæ, and glands, presented nothing unusual in their appearance. Near the anterior margin of the axilla, a little higher up on each side, was situated another mamma, about one-sixth the size of the others. The nipples of these were small and flat, but when gently pressed a milky fluid flowed copiously and readily from several ducts which opened upon their extremities. When milk was drawn from the lower breasts, a small quantity usually escaped from the nipples of the upper; and when the draught came into the former, the latter invariably became hard and distended. From the flatness of the nipples of the upper breasts the patient had never been able to suckle with them.

The author considers the above case as furnishing one of the best examples on record of quadruple mammæ in the human subject, and cites from several foreign authors some of the most striking instances he has met with of the same malformation: the cases present no material deviation from the one under consideration. The author remarks, that in some women only one breast has been developed; others have had two nipples placed on one mamma; and a few individuals have had three breasts, two in the natural situation, and a third between them. Only one case has been recorded of five mammæ in the human subject.—*Lond. Med. Gaz.*, *Jan.* 1838.

PATHOLOGY AND THERAPEUTICS.

REPORTS OF CASES OCCURRING IN THE CLINIQUE OF M. LOUIS,

BY HENRY CURLING, ESQ.

ENTERITIS—*Recovery.*

A FEMALE, aged 30, of a weak constitution, was admitted into La Pitié, under M. Louis, April 12th. She had been attacked on the 2d instant, about noon, with a rigor, which lasted two hours, followed by increased heat. She had likewise vomited, but had neither headache nor giddiness. These symptoms were soon succeeded by pain in the abdomen and diarrhœa, which, with the fever, have continued to the present time. The pain has been confined to no particular spot. On the second day of her illness she had considerable nausea and vomiting, attended with slight pain in the epigastrium, to which she had never been subject. On the third or fourth day, cough was added to these symptoms. For the six or seven days preceding her illness she had a little tinnitus aurium, but it has since ceased, except when she coughs. She has one child; and menstruated about three days ago.

April 12th.—Pulse 94, full; yesterday evening 100; skin hot; eyes hollow; the inferior lip covered with a white crust; countenance expressive of weakness, but there is no appearance of stupor; memory exact; the circumference of the tongue red, white, and villous in the centre; nausea increased by drinking; complete anorexia; four stools yesterday; no pain in the abdomen. A little below, and to the left of the umbilicus, there is a swelling about two inches in width. It is hard, fixed, and gives no sound, and is not at all painful; respiration quite natural.

Diet. Ptisan, Oiij. Extract. Opii, gr. i.

15th.—Feels better, and is in good spirits; has eaten some bouillon without being followed by nausea; pulse 100, regular; heat natural; no pain in the epigastrium; the tumour is more moveable, and is very close to the neck of the uterus, which is not, however, displaced; tongue white and villous; has had one stool.

All these symptoms gradually subsided, with the exception of the diarrhœa, which persisted to the 22d inst. A few days after, she left the hospital convalescent.

ENTERITIS—*Recovery.*

A man, aged 53, of a moderately strong constitution, was admitted under M. Louis, March 22d, having been ill seven days. His illness commenced with pain in the abdomen and diarrhœa, which have continued to the present time. He has had as many as thirty stools in one day, but no tenesmus. The matter voided was often compared by the patient to white of eggs, and was frequently mixed with blood. He has had considerable fever, attended with perspiration and headache. He ceased working from the commencement, but has not kept his bed. He has never had a similar complaint.

March 23d.—Countenance natural; tongue moist; thirst moderate; has vomited twice; six stools yesterday; abdomen well formed, sensible to pressure; the pain does not follow a transverse direction. Pulse 52; no fever; subcrepitation posteriorly and inferiorly on both sides, but especially on the right.

Tr. Opii, ℥j. in injectione administ.

The diarrhœa ceased the second day after the administration of the injection, and in three or four days he was quite well.

TYPHOID FEVER WITH ERUPTION—*Recovery.*

A young man, aged 23, of a strong constitution, with black hair and eyebrows, well developed, came to the hospital March 9th. For six or seven days previous to his illness he had had diarrhœa, but had paid no attention to it. He has been obliged to keep his bed the last fortnight. His illness commenced with shivering, cough, and headache, followed by excessive heat and great prostration of strength. The diarrhœa has continued except during the last two days; the fever has not ceased, but he has had no return of the rigors. Anorexia and tinnitus aurium are to be added to the symptoms. The sight has been troubled, and he has felt giddy; but he has had neither pain in the abdomen, nor epistaxis.

March 10th.—Lies on his back; face covered with red spots, and has an expression of anxiety; answers questions rapidly and sensibly; sight troubled; eyes injected; nostrils dry; feels giddy; tongue dry in the centre, moist and natural in its circumference; no meteorism; no gargouillement in the right iliac fossa. The chest, axilla, and abdomen, covered with numerous vesicles, half a line in diameter; perspired a little in the night; several rose-coloured spots are seen on the chest and abdomen; pulse 96 yesterday evening; 100 this morning. A bitter taste in the mouth; no nausea; respiration vesicular; much thirst.

Antim. Tartariz. gr. j. in die sumend.

11th.—Countenance less injected; has not vomited; pulse 92 yesterday evening, 88 this morning; tongue dry in the centre, but trembles less; tinnitus;

fresh vesicles on the chest and neck; desquamation of the skin; four stools; spleen cannot be distinguished.

Eau de Seidlitz, half a bottle to be taken during the day.

On the 14th the sudamina were still more numerous, and confluent, particularly about the axilla. The tongue began to clean, and to become moist.

On the 17th he felt a little appetite, and from this period he became rapidly convalescent.

REMARKS.—These three cases afford examples of two diseases, enteritis and typhoid fever, which by inattentive observers are often confounded. Though several symptoms of typhoid fever were absent in the last case, those that were present were sufficient to announce its nature. The diarrhœa and excessive prostration of strength at the commencement, the headache, the giddiness, and tinnitus, the presence of sudamina and rose-lenticular spots, could, when combined, be attributed to no other disease.

In like manner, in the second case, the nature of the disease was denoted by the very numerous stools, the little fever, the pulse being only 50; the little prostration of strength (for although the patient ceased working the second day, he never kept his bed); the advanced age of the patient (53); the absence of giddiness, tinnitus, and spots. These symptoms are only observed in enteritis. Pain in the abdomen and diarrhœa, though sufficiently frequent in typhoid fever, are still more constant in enteritis. Headache occurs in forty-nine cases out of fifty of fever, but in not more than two of the same number of cases of enteritis. Among a great number of cases of enteritis observed by M. Louis, only one quitted his work the day of the attack, while the contrary happens in typhoid fever. The rose-lenticular spots, the sodamina, epistaxis, meteorism, are rare in enteritis; not more than one in twenty-three had epistaxis. Vomiting is also rare in enteritis; but it does not often occur in fever before the eighth or ninth day, the period when most of the complications of fever are developed. Enteritis may occur from infancy, may be repeated several times, and may complicate other diseases. Typhoid fever rarely attacks very young or very old individuals. When M Louis wrote his work on Fever, 25 was the mean age of the cases he had observed. From a more recent analysis of a still greater number of cases, he finds 23 to be nearer the truth. He has never seen it after 60 years, and very rarely after 50. M. Louis has only seen five fatal cases of enteritis; and, considering its frequency, he does not view it as a dangerous disease.

Though it is impossible to confound well-marked cases of enteritis and typhoid fever, yet as a disease is more denoted by the combination of certain symptoms than by the presence of any one particular sign, so, when some of these symptoms are absent—when they occur in a different order, the diagnosis is often rendered difficult. This occurs in enteritis and typhus fever, slight cases of which are often confounded. And the distinction between them is more important than is generally thought, particularly as regards the prognosis. All the cases of perforation of the intestines which have fallen under M. Louis's notice were at the commencement very mild, and comparatively trifling.

In the first case the diagnosis was doubtful: the disease commenced by a shivering fit, fever, diarrhœa, pain in the abdomen, succeeded on the second day by epigastric pain and vomiting, and on the fourth by a little catarrh.

The diarrhœa, the depression of strength, and the vomiting, would seem to indicate fever, whilst the slight headache, the absence of giddiness, of spots, and of pain confined to the right iliac region, would rather indicate enteritis.

A white exudation on the mucous membrane of the mouth was considered by the ancients as a very fatal sign; but that it is not always so the first case proves. It certainly is only developed when the patient is very weak, whether from the effects of an acute or chronic disease, and depends upon an inflammation of the mucous membrane. In like manner sudamina are often looked upon as a very dangerous symptom, whereas only one-half of the patients in whom this symptom is present die.

TYPHOID FEVER—ERYSIPELAS OF THE FACE—ACUTE PERITONITIS FROM SUPPOSED PERFORATION OF THE ILEUM—*Recovery.*

A cook, aged 33, had resided in Paris three weeks, when, on attempting one morning (March 22) to get up, she was attacked with vertigo, pain in the head, buzzing in the ears, and chilliness, which obliged her to keep her bed. She arrived in Paris in perfect health, and had not been exposed to privations. These symptoms continued till the 25th, when, being obliged to go out, she fell down from weakness. The next day she vomited for the first time, and had diarrhœa, with pain in the abdomen. On the 31st she entered the hospital, having walked there with difficulty, supported by two persons.

April 1st.—Memory exact; lies on her back; eyes sunk; cheeks of a livid red colour; vision troubled; tinnitus aurium; great postration of strength, but not complete; tongue dry and red, not pointed; pulse 120, small and feeble; great thirst; abdomen soft; the spleen cannot be distinguished; pain in both iliac fossæ increased by pressure; no pain in the epigastrium; twenty stools yesterday; respiration healthy.

Diet: ptisan. Antimon. Tart. gr. j. in die sumend.

2d.—Has had three stools, and vomited four times. Yesterday afternoon the nose became red and swollen; the left cheek soon became in a similar state, and during the night the right cheek. The erysipelas extends as far as the chin; the occiput is painful when pressed, but is not œdematous; pulse 112; other symptoms continue the same.

Eau de Seidlitz, half a bottle.

6th.—The erysipelas has subsided considerably, and there is abundant desquamation of skin; her menses returned yesterday; no headache; pulse 104; no thirst; feels very weak.

7th.—At half-past six yesterday evening she was attacked with an acute pain in the right iliac fossa, accompanied by nausea and vomiting and rigors. At midnight the abdomen was universally painful, the pulse 116, weak and feeble. The pulse is now 140, and very small. Some laudanum was immediately given her. The tongue is projected with difficulty; the cheeks are of a deep violet tint; 40 respirations in a minute; she cannot bear the least pressure on the abdomen; pulsations of the heart imperceptible; two stools after a lavement; only took three spoonsful of soup and a biscuit yesterday.

Three oranges. Acet. Morph. gr. j. in Mist. Mucilagin. sum. Strict diet.

8th.—Pulse 152 yesterday afternoon; now 116. Countenance improved; no nausea; circumvolutions of the intestines can be distinguished; abdomen soft, and without pain, except when pressed; no stool. Tongue slightly moist; red in its circumference, white in the centre.

Three lemons, and a little ice. Rep. Mist.

10th.—Cheeks red; abundant desquamation; no pain in the abdomen, except in the right iliac fossa; tongue red, not very moist; small white spots on the mucous membrane lining the lips, and a white exudation at the roots of the teeth.

Rep. Mist. Fomentations to the abdomen.

For several days she continued in a very precarious state, the pulse being very quick and small; but by persevering in the administration of opium, and in complete abstinence from all food, she was, towards the end of the month, enabled to get up, although very weak. In the course of another month she left the hospital.

REMARKS.—The symptoms at the commencement bore some resemblance to those of ramollissement of the brain. Indeed, it has twice happened to M. Louis to confound typhoid fever with that disease, which he has seen at the commencement attended with no other symptom than excessive prostration of strength. On the fifth day the nature of the disease was announced by the diarrhœa, abdominal pain, vomiting, &c., although many other important symptoms of fever were absent. It is by no means rare to see erysipelas of the face developed during the course of a typhoid fever; whereas it is very rare to see erysipelas preceded by cerebral and abdominal symptoms for twelve days; so that this complication would rather tend to comfirm the diagnosis. On the 7th instant evident symptoms of acute peritonitis were present, which M. Louis believed to be caused by a perforation of the small intestine caused by ulceration, and situated about the junction of the ileum with the cæcum. Peritonitis so rarely complicates acute diseases, that it may almost be laid down as a law, that if in the course of an acute disease there suddenly comes on a sudden pain, if this pain is increased by pressure, and accompanied by a rapid alteration of the features, and more or less promptly by nausea and vomiting, a perforation of the intestine exists. The probability becomes still greater if the disease is typhoid fever, as it is always accompanied by some degree of ulceration of the intestine. This is the first case of perforation of the intestine, occurring in the course of a typhoid fever, which M. Louis has seen recover. Would not the peritonitis be considered by many physicians, and perhaps justly so, as a metastasis of the erysipelas of the face?

SCIRRHUS OF THE PYLORUS—*Death.*

A sempstress, aged 69, previous to the month of November, 1836, enjoyed excellent health; her digestion had always been good; she had never experienced pain in the epigastrium; had always been in easy circumstances, and enjoyed the necessaries of life without having committed any excesses in drinking, &c. &c. In that month she was troubled, for the first time, with a pain in the epigastrium, and her appetite at the same time diminished. In December she was attacked with frequent vomitings, and often brought up her food thirty-six hours after eating it. On that account she took hardly any nourishment, and became very thin. The pain in the epigastrium increased during the months of January, February, &c., and came on generally two or three hours after a meal; the vomiting also became more frequent, the food which had been eaten three or four days before being often rejected unaltered. In the month of April she was admitted into La Pitié under M. Louis, and presented the following appearance:—

April 22.—She is in the last stage of marasmus; cheeks purple, and very hollow; superior limbs of a purple hue; pulse very small; pulsations of the heart well marked; tongue villous and white; no diarrhœa or cough; a depression in the epigastrium; pain upon pressure 1½ inches to the right and a little below the umbilicus; also a little above and below the umbilicus a projection having the form of the little curvature of the stomach. Upon pressure being applied, a species of gargouillement is heard; has vomited four times since yesterday a clear fluid; continual eructations of gas; respiration healthy. She remained in the hospital about a fortnight; at the expiration of which period she died. Extensive scirrhus of the pylorus was found to be the cause of the symptoms, but I unfortunately was not present at the examination.

Pain in the epigastrium and anorexia are by no means always the signs of an organic disease of the stomach. They occur also in chronic gastritis, a disease which has not yet been well described, and of which M. Louis has seen but few examples; that is to say, in healthy persons, and occurring as a primitive disease; for nothing is more common than chronic gastritis in the course of phthisis and other similar diseases. But in the latter disease there is seldom vomiting of food taken two or three days before, as in this case. The vomiting was, however, by no means pathognomonic of organic disease; it was composed solely of the food, and was never mixed with blood, so that there was no reason to suspect ulceration of the mucous membrane. The depression at the epigastrium, the projection above and below the umbilicus, and the gargouillement, indicated a distended stomach; the projection being chiefly caused by the lesser *cul de sac.* The situation of the pain seemed to indicate the pylorus as the part diseased, which was the case. M. Louis does not consider scirrhus an inflammatory affection, or to be a sequel of inflammation. Cancer seldom occurs before the age of fifty, whereas gastritis occurs at all ages. Men are less liable to cancer than women, though they more frequently commit excesses. This, however, proves nothing; for, according to the same authority, women are more subject to acute gastritis than men. Cancer has a predilection for certain parts of the stomach. Thus out of 33 cases

In 16 the cancer occupied the epilorus.
11 . . . . . small curvature.
6 . . . . . the large do.

The cicatrices of ulcerations of the stomach are never observed in the epilorus; they more usually occupy the posterior surface of the stomach. The parts of the body most subject to cancer, are less liable to inflammation. Out of 65 cases.

21 consisted of cancer of the stomach.
22 . . . . . . uterus.
10 . . . . . . liver.
5 . . . . . . lung.
2 . . . . . . rectum.

No account is here taken of the mamma or testicle. In the lung, which perhaps is the viscus most subject to inflammation, it only occurred in five cases, and in none of these primitively.

CANCER OF THE UTERUS—*Death.*

A woman, aged 40, the mother of six children, was attacked with hemorrhage from the uterus fourteen months ago, which lasted seven days, and has frequently recurred. She commenced menstruating at 16; her menses were not very abundant, and were always preceded by pains in the loins, which ceased on their appearance. She has had leucorrhœa from the time she first commenced menstruating. Her accouchements have all been natural, and she has generally kept her room five weeks after each. Since the first hemorrhage, the leucorrhœa has been more abundant. She has continued her work, except during the last two days. The hemorrhage was preceded by pain in the loins, extending round the sacrum. She has had a difficulty in making water since her first accouchement, and passes it very slowly and frequently. The pain in the loins and sacrum has augmented during the last week, and the discharge has been red. She has had scarcely any rest during this time, on account of the great pain at the anus. Her bowels are relaxed. She has but little appetite, and is considerably emaciated. Her abdomen is well formed, but pressure in the left lumbar and iliac regions causes pain; pulse 84; chest healthy.

Pulv. Opii, gr. j. nocte sumend.
Inject. Calcis Chlorid. ℥iij ad Oj.

January 23d.—Has suffered much from pain; less discharge, passing her water with facility; no sensation of weight at the uterus; pulse 88; no headache: above the left clavicle are situated several small round spherical tumours which have existed for months; they have caused no pain, and had existed some time before they were discovered: several of the glands in the inguinal region are enlarged.

During the month of February she was examined with the speculum; the neck of the uterus was found indurated and enlarged on the right side, and of a livid tint, presenting a very unequal appearance. She complained greatly of a pain at the arms, which ceased after the application of leeches. Having obtained admission into Salpêtrière she soon after left the hospital.

The symptoms were quite sufficient to denote the nature of the disease. The hemorrhage occurred at the commencement, was considerable, and was repeated four times. In inflammation of the uterus there is often hemorrhage, but it is very slight. When fibrous tumours exist in the uterus, there is also hemorrhage, but by no means so abundant; and it occurs at a later period. Out of twenty-one cases of cancer of the uterus, all of whom died and were examined, in two only was hemorrhage not present, and in one of these there was a rose-coloured discharge. Out of the nineteen, in which hemorrhage formed one of the principal symptoms, in 13 it was developed 3, 4, and 5 months after the commencement of the disease. In the remaining six it was the first symptom that was observed, preceding or occurring at the same time as the pain. Age had no influence upon it, for it occurred at the various ages of 23, 60, and 70. The two in whom this symptom was absent, were between 30 and 40. Hemorrhage accompanies organic diseases of various organs, and in none is it so frequently present as in cancer of the uterus. The mucous membrane is frequently found quite healthy: the bleeding often precedes the pain. The sensation of weight at the anus, which had lasted a considerable time, and was relieved by leeches, most probably depended upon a swelling of the neighbouring parts. The mean duration of cancer of the uterus is about two years or two years and a half. Cancer of the stomach causes death in a much shorter period, in eight or ten months; the great importance of the functions of the organ fully accounts for this.—*Lond. Med. Gaz. Jan.* 1838.

PERNICIOUS EFFECTS OF ENAMEL CARDS.

To the Editor of the Medical Gazette.

Sir,—As you devoted several pages of your last number but one to the subject of arsenical candles, which are not demonstrated to have proved destructive to human life in a single instance, although it may be highly probable that they would be injurious, under certain circumstances, if brought into general use, I venture to consider you as not unwilling again to undertake the office of guardian of the public health in a much more flagrant case; and it is the more necessary that our respectable medical journalists should take upon themselves such duties, as we unfortunately have no responsible board or council to whom these are officially confided. I wish, then, to bring to your notice an evil which, if generally known, will, I am persuaded, make a strong impression on the public, and lead to the application of a remedy which at their hands alone can be obtained.

It will doubtless have fallen under your observation, that enamelled visiting and shop cards are now so much in vogue, that persons of fashion, and the superior classes of tradesmen, scarcely use any other. The only advantages which, as far as I am aware, they possess over other cards, are, that they please the eye, and that they take a finer impression from a copper-plate, a thing of hardly any importance under the circumstances in which alone they are employed. The disadvantages attending their use are, 1st, that they blacken on exposure to mephitic air, which is often disengaged from common coal, as well as from the sinks and drains in private dwellings, and still more often from the gas in shops, which moreover, being always on ground floors, are particularly exposed to the noxious vapours arising from imperfect drainage. This defect in enamelled cards wholly precludes their employment for receiving the impressions of more permanent engravings. 2dly, That it is difficult to write legibly on them, whether in pencil, which will not mark, or in ink, which runs; so that one person cannot conveniently add his name to the engraved card of another; nor can visiting cards be used, as formerly, in writing addresses for boxes, parcels, or game. 3dly, That when slightly bent they crack and look unsightly; and that they cannot be applied, as old and otherwise useless cards often were, to the lighting of fires or candles, for they burn with great difficulty.

The advantages and disadvantages are thus, it seems, pretty fairly balanced; but why do I enumerate them, or wish to disturb the exercise of the general taste, in a matter apparently so unimportant? For a very cogent reason, to which it is the sole object of this letter to direct your attention, namely, that *of the many deleterious employments carried on in this metropolis, the manufacture of these enamelled cards is the most deleterious.* It is my belief, founded on inquiry, that the lives of many workmen are annually sacrificed to the production of this useless luxury; and that a far greater number are, from the same cause, more or less injured in their health, and unfitted, some temporarily, some permanently, for providing for themselves and their families. I would avoid the imputation of an overstrained sensibility, and I fully admit that the state of civilization in which we live renders necessary much risk of healt various arts that contribute to the supply of our wants maintain, that, where the advantage to be gained is so should prompt us, one and all, to refrain from indulgin only be obtained at so heavy a sacrifice. It has been s makers are only occasionally employed in making enam would be thrown out of work if not another card of th

REPORT ON THE INOCULATION OF MORPHINE, &c. PROPOSED BY DR. LAFARGUE.

BY M. MARTIN-SOLON.

The effects produced by the inoculation of morphine are considered by Dr. Lafargue as worthy of consideration, both in their bearing on practical medicine and on medico-legal questions. If the point of a lancet, dipped in an aqueous solution of morphine, is inserted horizontally, about one line in depth beneath the epidermis, and is allowed to remain there a few seconds, the following effects are observed:—About a minute and a half after the operation, a small pimple with a diffuse rosy areola, and slightly itching, is observed. In about twenty minutes, the pimple becomes about four lines in diameter, and one line in thickness; it is flattened. Its colour is somewhat more than that of the skin, it is hard, its areola is very red, and about an inch and a half in diameter; its heat has increased, but the sensation of itching remains about the same. During the first hour, the pimple and its areola are at their highest degree of development. From this time, the appearances diminish, and at the end of two or three hours the red colour of the skin has entirely disappeared, the pimple has become very flat; but it does not entirely disappear, until from twelve to twenty-four hours after the operation. If several punctures are made near one another, in the same manner, the appearances of the pimples are as above described, but the areolæ are confluent; the heat and itching are considerably increased. The appearances, however, disappear in the same time as when a single puncture only has been made. The general effects which Dr. Lafargue experienced from thirteen punctures thus made upon the front of his forearm were, heaviness of the head, frequent yawnings, clamminess of the mouth, and an invincible desire to sleep; the quantity of muriate of morphia employed not having exceeded a quarter of a grain.

The effects just noticed, Dr. L. considers as showing that the inoculation of morphia may supersede the use of blisters and ammoniacal applications, and that it merits employment more particularly where the object of the physician is to produce the local effects of morphine. Its effects as a rubefacient are also very marked. The local effects produced by the inoculation of belladonna, of strychnine, of sulphate of quinine, were different from those above mentioned. In employing other opiate preparations, such as the laudanum of Sydenham, and solutions of opium in fat, milk, coffee, beer mucus, acetic acid, and gelatine, the proportion of opium being extremely small, the same results were obtained, and no such effects were produced when any of these substances were introduced without the opium.

M. Martin-Solon repeated the experiments of Dr. Lafargue. From the inoculation of all the common preparations of opium, he observed the same effects as those above mentioned; except that the papulæ sometimes acquired a diameter of an inch and a half, and that they then became radiated and diffuse. To ascertain whether any other substances were capable of producing the same phenomena, belladonna, strychnine, the gastric juices, chyme, &c., were employed, and the effects which were observed destroyed the exclusiveness which Dr. L. wishes to attribute to the action of preparations of opium.

The conclusion which may be derived from these experiments, may be of some assistance in determining the absence of opium from a fluid which is suspected to contain it; seeing that in all the cases in which fluids containing opium were inoculated (in one instance, the proportion of opium to the solvent was as 1 to 2000), the phenomena described above were observed by both Dr. Lafargue and M. Solon. The development of the papula can, however, be only regarded as presumptive idence of the presence of opium; seeing that other substances are capable of producing effects so nearly identical as not to admit of any definite distinction.

Dr. Lafargue has also inoculated a concentrated solution of emetic tartar and the croton oil. The former has always produced a pustule similar to that of acne simplex, containing pus, twenty-four hours after the operation; and the effect of croton oil has constantly been the production of a furuncle thirty-six hours after the introduction of the medicine. Neither of these substances has, however, been sufficiently employed to allow of any inference to the advantage which this mode of application possesses over that in general use. Its simplicity, nevertheless, renders such an experiment very easy.—*Bulletin de l'Academie Royale de Médecine.*

OBSERVATIONS ON THE EMPLOYMENT OF GUNPOWDER AS A MEDICINE, IN VARIOUS MORBID STATES OF THE GASTRO-ENTERIC MUCOUS MEMBRANE.

By Robert Dick, M.D., Glasgow.

I beg to call, through your Journal, the attention of the profession to the employment of gunpowder, as, in some cases, an useful addition to the already existing stock of medicaments.

I was induced, from theoretical considerations, lately to prescribe it, in certain cases, and had reason to be satisfied with the results.

The derangements for which it appears to me to be peculiarly adapted are morbid secretions of the gastro-mucous membrane, depending on a *sub*-inflammatory action, or accompanied by it.

In such cases, gunpowder, given in various doses, and with the occasional interposition of ordinary mild laxatives, has proved, in my hands, eminently serviceable.

Whether it may be appropriate in a greater variety of cases, or whether it may, if given in larger doses, and for a greater length of time, than I prescribed it, be found useful as a constitutional alterative, or as a cutaneous drug, I am unable to state. But I should not be surprised if it should be found so. I have administered from ten grains, indefinitely upwards, several times in the day.

I find the use of spirituous liquors, or of pungent condiments, &c. rather contraindicated during the employment of gunpowder. The gastralgic effects which I have found these produce, when used simultaneously with gunpowder, I ascribe to what I shall venture to designate the *detergent* effects of that substance on the mucous membrane, which, owing perhaps to its charcoal and nitre, it denudes of its attaching albumino-mucous secretion, clearing, and seemingly *attenuating* that membrane, in some measure.

One advantage of this drug is, that it exists in commerce, ready for medical use.

The best form of administration of gunpowder is in the dry state. The liquid form does not suit.

No apprehensions need be entertained of the charcoal producing any unpleasant consequences. In *pica*, and in the chlorotic state, large quantities of this substance are eaten with impunity; and further, J. P. Frank* recommends it as an effectual remedy in flatulence.

The above notices are very general, as the remarks of an individual, who suggests a new drug, ought always to be.

In speaking of the therapeutic effects of gunpowder in various morbid states of the gastro-enteric mucous membrane and its secretions, it may be not unseasonable to add to the observations now made by Dr. Dick, the remark, that charcoal in its separate and pure state has been long used by various practitioners with similar intentions, and to fulfil similar indications in the treatment of ague with gastric, enteric, or dysenteric complication. As a short notice of the use of this substance is given in the Elements of the Practice of Physic by Dr. Craigie, without entering into all the details of the history of the introduction of this substance into the practice of medicine, the easiest way perhaps is to quote the account given in that work.

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* De Curandis Hominum Morbis.

"The exhibition of charcoal for the cure of ague, as a substitute for bark, appears to have been practised in 1813 by Calcagno at Palermo, and afterwards by Dr. Calvert, Mr. Mackesy, Mr. Tully, and other English practitioners, in Sicily;* and it was used with that intention by Dr. Jackson in the West Indies. In simple ague it seems to produce little or no benefit. But in ague with affection of the gastric, or the hepatic, or gastro-enteric circulation, in ague with anguish at stomach, squeamishness, flatulence, or hiccup, and in dysenteric ague, its sanative influence is unequivocal and powerful. It may be given in doses of from ten to twenty grains in rice-water or arrow-root, either alone or with six or eight grains of rhubarb, and two or three grains of powder of ipecacuan. It appears to operate chiefly by rectifying disordered secretions of the stomach and bowels. It is probably by its charcoal, that the snuff of a candle, which has been alleged to be beneficial in curing ague, as mentioned by Lind, operates."—P. 137.—*Edin. Med. and Surg. Journ., Jan.* 1838.

MR. LAW ON THE USE OF ARSENIC IN PLETHORA.

M. F., aged 37, has for seven or eight years been occasionally subject to violent headache, continuing for some days, and though not always, very generally proceeding to a hysterical paroxysm, which, along with the headache, is only dispelled by free bleedings of from sixteen to twenty ounces of blood, and sometimes a larger quantity.

She is rather above the middle stature, and of a full habit, without much complexion, the bowels apt to be slow, but the necessary aperients regularly employed. She is rather apt to be sedentary, but partakes most sparingly of sleep, or even the recumbent posture, and takes food as well liquid in much less quantity than the average of her own sex, avoiding vinous stimuli almost entirely. Catamenia regular.

Every practitioner summoned to her assistance, wherever she may have been residing, has, from the urgency of the symptoms, been led to the use of the lancet, which alone ever relieved her effectually at the time, the blood flowing with unusual force from the arm when I have had occasion to open a vein in this person. In a few hours after one of these full bleedings, she will leave the recumbent position, proceeding with her usual occupations as if nothing had been the matter. These attacks became of more frequent occurrence towards the end of last spring, when it seemed to me, that as it was next to impossible to diminish the ingesta here, and as the degree of exercise necessary to subdue so strong a disposition to plethora would be of very difficult enforcement, independent of other collateral circumstances in this case, arsenic administered in small doses at the commencement of an attack, would, from its sedative influence on the system, lessen what we were contending against, and for a longer time than the bleedings, which are so apt to demand repetition. Accordingly she had a watery mixture prepared with five minims of the arsenical solution in each teaspoonful, directing her to take a teaspoonful in a little more water, morning and evening, just after a meal, when threatened with an attack, and to intermit it entirely when the tendency disappeared.

It is now six months since the trial was first made, the medicine being, according to these directions, only occasionally employed; nor has she ever since suffered, but in a very slight degree, from what had begun to assume a more alarming aspect. She has on several different occasions in this time found it necessary to have recourse to the arsenic for three successive days, but with the same marked benefit, and what may appear less accountable, the disposition to such a disease has been thus controlled under even some increase of appetite, using rather more food than formerly.

I have been informed that one of her parents died of what has been described to me as apoplexy; but if it was so, and there is a hereditary tendency to cerebral disease, the influence of the medicine in this case is not the less worthy of attention.

I never for one instant intend to be understood as wishing to see such treatment substituted for that of the lancet in most ordinary occasions where its use is signal and direct, but there are many others where the above may be successfully employed, either by itself, or in conjunction with, or consequent to some mode of depletion.—*Ibid.*

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* Med. and Surg. Journ. x. 15, 403.

SURGERY.

NARRATIVE OF A CASE IN WHICH THE PAROTID GLAND WAS EXTIRPATED ON ACCOUNT OF DISEASE,

In the Toronto Hospital, Upper Canada.

BY C. WIDMER, ESQ., SURGEON TO THE FORCES.

An elliptical incision having been made in the integuments of the most prominent point of the tumour, its removal was effected without much difficulty, and with little loss of blood, the facility being attributed by the author to the adoption of the method of separating the mass from the lower part upwards. The external jugular vein and external carotid artery being necessarily divided, were immediately secured by ligatures, the latter being tied at both ends. When the removal of the mass had been entirely accomplished, the styloid process, and the transverse process of the atlas, were exposed to view. The result of the operation was quite favourable, the wound being entirely healed in six weeks.—*Lond. Med. Gaz., Jan.* 1838.

THE AIR CONDENSER APPLIED AS A REMEDY IN CASES OF DEAFNESS.

BY DR. KRAMER, PRACTICAL PHYSICIAN IN BERLIN.*

In my work on the Diseases of the Ear, (p. 252, fig. v.) I have described, under the name of air condenser, an apparatus for applying compressed air to cases of diseases of the middle ear, and I have also pointed out its great utility, and even indispensability, in the examination and treatment of most ear complaints. Since then, I have materially improved the construction of this condenser, so that, with the utmost simplicity of construction, it is now become extremely convenient to manage, and powerful in its operation. This improved construction I have employed for the last twelve months; several new instruments have been made after the pattern, and two accurate engravings have been sent to London to Drs. Bennet and Wharton Jones, so that I think it right to communicate to the public, in quarters where any interest is felt in such a subject, a description of this my newest air condenser.

It is fastened with strong metal screws, to a strong round oaken stool, *q q q q*, 1 foot ten inches high, and without a back; and consists of the following pieces:

The chest or case *a*, *b*, *c*, *d*, *e*, is of cast brass, 10 inches high, and 5 in diameter; and internally of 9½ inches high, and 4½ in diameter; it is furnished at *p* with an educt and cock, to which an elastic air-tight tube 1 foot 7 inches in length is attached.

The pump tube, *f*, *g*, *h*, *i*, likewise of cast brass, 10¼ inches high, and 2¼ in diameter, is screwed air-tight into the case, so that the whole stands 13 inches high above the stool.

At *l* is a small hole to admit the air into the pump tube, and at *s* in the piston box is a valve, which, as the piston is raised, allows the air to pass into the lower chamber. At *k* is a valve for the passage of the air into the interior of the case.

The piston rod *m*, with its stuffing box, is moved up and down with no great effort by the pump handle *n*, *o*, of 1 foot 10 inches in length.

The whole, besides possessing great solidity, is extremely handsome, of very moderate weight, and by the proper relation of the cubic contents of the pump tube to those of the case, (about as 1 : 2) causes a considerable compression of the air in the machine by a few strokes of the piston. The degree of greater or less violence in the rushing out of the air is brought completely under the control of the operator, by suitably opening the cock *p*. I have never hitherto found it necessary to apply a greater compression of the air than is obtained in this condenser by twenty-four strokes of the piston.

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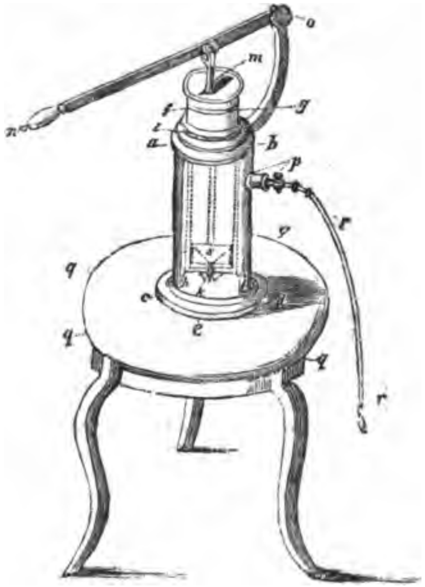
* Author of a work on the Nature and Treatment of Diseases of the Ear. (Wochenschrift fur die gesammte Heilkunde, No. 28. Berlin, July 15, 1837.)

The application of compressed air is màde upon principles which are more minutely described in my "Diseases of the Ear," Part ii. ch. 2 and 3, to which, therefore, I refer for further information. Here it will suffice, to communicate a few cases, in which deafness, arising from mucous obstruction in the cavity of the tympanum, has been completely removed by the application of the air condenser.



Case I.—Franlein Lieder, of this city, of delicate, slightly scrofulous constitution, complained for at least three years past of considerable hardness of hearing, with noises in the ear, for which, bleeding, strong saline purging, blisters, and cold washing of the ear, had been hitherto applied without success.

When she put herself under my care on the 27th of January of this year, she could hear my watch at three inches distance with her left ear, and at 10 inches with her right one. The internal noise was, in both her ears, dull, continuous, and accompanied with great heaviness in the head; both were sensibly greater in damp cold weather. The patient could not say anything with certainty about the cause of her deafness.

Upon examining the ears, I found in both the external ducts a quantity of dark ear-wax, which was immediately removed by syringing with warm water. By this, the heaviness of head, the sound in the ear, and the dulness of hearing, were at once much relieved; she could now hear my watch with her left ear 15 inches off, and with her right one about 4 feet. Notwithstanding this important improvement, her hearing was not yet in a normal or healthy state.

The next day, I inserted the catheter into the mouth of the Eustachian tube; upon blowing in, I heard a loud rumbling (brodelndes) sound in the cavity of the tympanum, and was hence led at once to suspect a mucous obstruction of that cavity. The application of the air condenser placed this conjecture beyond a doubt, although a slight pain in the ear, and a deterioration of the hearing down to two feet was for a short time the consequence. On the 29th she heard my watch at 28 inches with her left ear, and at 7 feet with her right one. The sound in the ear was scarcely perceived any more with this ear. After repeated moderate applications of the condenser, the distance of hearing reached, on the 3d February, to 14 feet on the left side, and 30 on the right, without any sound whatever in this ear. I now, therefore, introduced the compressed air only into the left ear, and so completely did it cleanse this ear also, that on the 9th February,—fourteen days, therefore, from the beginning of the case, it also could hear my watch at 30 feet off, with a slight remainder of noise in the ear, kept up by the baleful practice of cold-washing the ear.

This patient had taken no medicines whatever, and had only been put upon a dry diet. The accuracy of this communication will be confirmed by Privy-Councillor Dr. Steinrück, as physician to the Lieder family.

Case II.—Wilhelm Reschke, aged 17, (employed in Petri's circulating library,) slenderly formed, thin, and of a pale complexion, complained since he was four years old of noise in the ear, difficulty of hearing, much phlegm in his mouth, sore throats, swollen glands and uvula, and stoppings in the nose. For these complaints, which still subsisted, he put himself under my care on the 17th September, 1836. He could then hear my watch at 2 feet with his left ear, and at 15 inches with his right one.

On examining the organ, I found the external passages healthy. The air, when blown through the catheter into the Eustachian tube, did not immediately, on the left side, penetrate as far as the drum, but did so very distinctly on the right side, with an instantaneous extension of the distance at which my watch was heard to 4 feet, and with the sensation of great freeness and lightness in the whole head. By this result, the existence of an obstruction in the cavity of the tympanum was established.

In the second sitting the air reached the drum on the left side likewise, and was accompanied with a feeling as if it were working itself through a dense mass, a feeling which did not disappear until after several repetitions of the air douche. It then gave way to a greater lightness in the ear. The hearing distance was improved to 4 feet.

Seven other sittings before the air condenser followed this one, the last was on the 1st October, in which the air struck quite freely and clearly upon the membrane of the tympanum; the sound had altogether ceased, and both ears continued to hear my watch at a distance of 30 feet.

The cure was now complete, and has since remained without deterioration. The patient had taken no medicines; I had only forbidden him mucilaginous nourishment and beverage.

Case III.—Carl Donath, 9 years old, of tender, weak constitution, delicate nose, small lively eyes, and great general vivacity, suffered from his earliest youth from hardness of hearing, proneness to coughs and colds, much phlegm in the throat, without any swelling of the glands. Noises in the ear had been frequent until the last three months, but since then none at all, without any change in the rest of his condition.

When he requested my assistance in October 1836, he could hear my watch at 5 inches with the left ear, and at 4 with the right one. I found the *membrana tympani* on both sides slightly thickened. Delicate veins ran along the *manubrium mallei*. When the catheter was introduced into the opening of the Eustachian tube, the air which was blown in, penetrated, with a loud rumbling (brodeln) to the drum, and the hearing was instantly extended to a distance of 2 feet for the left ear, and 3 for the right one; by which the existence of mucous obstruction in the middle ear was put beyond a doubt.

So in the second sitting also, I only blew into the cavity of the tympanum, and this was sufficient to extend the hearing distance on the left side to 5 feet, and on the right to 5½.

In the third sitting I had recourse to the condenser; after which, the distance reached to 8 feet on the left side, and 6 on the right. In the fourth sitting it was 15 feet on each side, and in this manner the hearing continued to improve after each individual sitting. At last, on 22d November, (in the eighth sitting,) the air streamed altogether clear, and without any rumble, against the membrane of the drum; after which my watch was audible to each ear at a distance of 30 feet. This healthy state has been constantly preserved ever since, notwithstanding many colds. It was simply the result of the excellent working of the air condenser, which was aided only by a thin strong diet, without any assistance of medicines.

Case IV.—Carl, son of Burgesmeister Herr Rehfeldt, of this place, 10 years old, of lymphatic constitution, inclined to coughs and colds, but in other respects healthy, had suffered for some years intermittedly more or less, of a hardness of hearing, and was put under my care in the spring of 1836. He then heard my watch 14 inches off with his left, and at 4 inches with his right ear, and complained of a violent hissing in both ears.

I found both the external passages of the ears perfectly clean, and the membrane of the *tympanum* transparent. When I blew through the catheter into the cavity of the tympanum, I heard distinctly a loud rumbling. The hearing improved itself at once to 20 inches left, and 18 inches right side, so that an obstruction of the middle ear could be distinctly recognized. It was of less moment that the entire hollow of the opening was covered with clammy slime, and the *velum* of the palate was found to be slightly red, and very relaxed.

I first put the patient upon a diet of dry, thin, strong food, and gave him a mild aperient. On the 1st of June I began the direct treatment of the ear with the air condenser, at first with great caution. In the second sitting on the 4th of June, the stream penetrated with a loud rumbling, and at last with a sharp explosion, against the membrane of each ear; whereupon the hearing distance increased to 3 feet left, and 2 feet right, and the sound in the ear suddenly ceased entirely.

It would be tedious to bring before the reader the course of the treatment through each single sitting. It may be sufficient to state, that in the first week of the cure, the mucous accretion of the cavity of the drum constantly reappeared soon after the sittings, with a corresponding diminution of the hearing distance; that this was again extended by each douche, the air always rushing in with a strong rumbling, and always bearing out on its return through the nose a great quantity of slime, until after forty-eight sittings, (the last of which was on the 26th September,) the mucous congestion was altogether removed, so that the air streamed freely and clearly upon the drum, and my watch was heard by each ear at a distance of 30 feet. This excellent state of hearing has maintained itself without variation until now, through all the changes of the winter; only out of caution I still apply the douche to both ears once in four weeks, and forbid all slimy, unctuous, and such sorts of food and beverage.

The Counsellor Dr. Grâfe, House Physician to the Rehfeldt family, can vouch for the accuracy of this communication.*—*Edinburgh Medical and Surgical Journal, Jan.* 1838.

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Popular Medicine: or, Family Adviser; consisting of Outlines of Anatomy, Physiology, and Hygiene: with such Hints on the Practice of Physic and Surgery, and the Diseases of Women and Children, as may prove useful to Families when regular Physicians cannot be procured, &c., &c. By Reynell Coates, M.D., Fellow of the College of Physicians of Philadelphia; formerly Resident Surgeon of the Pennsylvania Hospital, &c., &c. Assisted by several Medical Friends. Philadelphia: Carey, Lea & Blanchard. 1838. pp. 614. 8vo.

This work, by Dr. Reynell Coates, is by far the best of its class. We must even add, that it has contributed not a little to the removal of our fears of the doubtful if not sinister tendency of an attempt to produce a system of Popular or Domestic Medicine. Positive good will result to them who shall study and take pains to acquire a knowledge of the facts and precepts in the *First Part*, or that which consists mainly of an "Outline of Anatomy" and "Remarks on Hygiene," in the work before us. These are an appropriate and a necessary introduction to the *Second Part*, in which the brief indications in the treatment of diseases and accidents by the aids of surgery and medicine, are set forth. After a survey of his labours in these matters, we feel inclined to join in opinion with Dr. Coates, who, in his preface, expresses his belief "that the principal evils which have resulted and are likely to result hereafter from attempts at popular medical instruction, are attributable rather to the manner in which the subject has been treated than to the nature of the subject itself." So broad is the contrast between both the matter and the manner of his task, and the systems of popular medicine hitherto published, that the author of the present treatise need not be under any apprehensions from his name being placed "in juxtaposition with that of some previous authors, whom to rival, or with whom to affiliate, falls not within the compass of his ambition."

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* We need hardly remind our readers of the admirable digest of Kramer's work on Diseases of the Ear in the British and Foreign Medical Review, and inserted in the Seventh number of the First Volume of this Journal.—Ed. Eclect. Journ.

The present age is one of transition. It is characterised by an eagerness and a longing for the enjoyment of principles, which are themselves but faintly seen, and as yet imperfectly understood. One thing seems to be generally admitted, however: mankind has been too long amused and occupied with the jingle of words and phrases; sometimes thrown into the shape of Aristotleian syllogisms, although poor Aristotle was as innocent of them as Confucius himself; sometimes into proverbs; and not seldom into poetical imaginings and metaphysical abstractions. If a people now run wild and show evidences, as in the olden time, of epidemic insanity, it is not for a chimera, nor without a knowledge of what they would be at. The thing is before them, though it may be still at a distance. They may lose their way, get involved in quagmires, and waste their strength in the attempt; but reach the object of their pursuit they will. The obstructions which the physical world interposed between nations and communities are now being rapidly removed; the ingenuity of man is at work incessantly, and with singular success, to establish a ready intercourse between the remotest parts of the earth, and procure an interchange of products of the soil and of manufacturing skill. Science is made to minister in a thousand shapes to our wants and tastes by multiplied and endless variety of machinery. Not less potent, in its ethical bearings, is the modern science of government, which shows the mode in which masses can be brought to counteract and restrain the undue influence and selfishness of the few.

But yet it must be confessed, that we are more confident of the power of the various agencies which have been set in motion, than satisfied with the security which they furnish us. The steam-engine and the democratic spirit are both in full play: both have performed wonders; but the safety-valve in either is not always watched, or it is foolishly kept down, and we have sad explosions. Sometimes the authorised conductors of both are asleep, or intoxicated with liquor or their elevated position; and ruin alike comes on those within the range of the machinery which they were placed to regulate. The world at large, however, is intent on perfecting these things;—it sees its obvious interest in doing so, and it will succeed. In the meantime no small risk is incurred in the transition—that is, during the period of experiment.

During all this time, whilst such extraordinary ingenuity is displayed to save labour, and to place man in a position in which he shall enjoy the greatest freedom with the greatest security, the individual is lost in the mass. He neither measures nor exercises his full powers;—or if he do, it is in a wrong direction. Intent upon modifying his relations with the external world, and multiplying and diversifying the products of machinery, he allows his own machine to be sadly abused and worn out before its time. He has done every thing but that for which any thing is valuable—retain his own powers of usefulness and enjoyment, by a methodical exercise of them. Men will be seen devoting themselves to a study of the doctrine of forces and its application to machinery, so that the greatest power shall be brought into action with the least loss or friction, who forget that their own joints, their spine, and their muscles are mechanical contrivances of the most perfect kind, which, to keep in order, they must use, and whilst using, watch not to overstrain by excess, nor to allow to become stiff by defect of motion. They will oil metallic hinges and locks, but forget the means to procure the lubricating fluid or synovia for their own hinge-like joints. They will exhibit the evidences of elasticity in the spring of a watch, and show with what care this must be protected; but they take no heed about the beautiful and perfect elastic spring of their own spinal column, on which the head—that noble and directing part—rides freely and safely. Eagerly occupied in inquiries into the various manifestations of mind, constituting ethics, religion, metaphysics, and politics, they are too often ignorant of the instrument, itself, of mind, or at least of the means by which it is best and most usefully exercised. Admirers of beauty and grace, they overlook the conditions for the possession, display and retention of these qualities; and seem not to be aware that there are fixed and irreversible laws of the animal economy which they are bound to study, but for which they attempt to substitute their own arbitrary notions.

Still, as we have said before, mankind has glimpses if not distinct vision of that which it wants for its physical and moral amelioration. The first step for reform is a perception and acknowledgment of the evil. These we hear now from various quarters. It is admitted that, although increased power is gained for the accomplishment of various designs, by men in masses, or in crowded communities, and that the scale of humanity seems to be higher than before, the individual deteriorates, as if he had parted with a portion of his energy to increase the general strength. He is physically weaker, his mental faculties, prematurely and excessively exercised, are sooner exhausted than would happen in due course of time, or through inevitable natural decay. But still worse: the mass, strong by the first assemblage of individuals with their personal prowess and vivacity, does not in its turn send out individuals, the creatures and children of its workings, equal to those from whom it was formed.

The social principle, which was intended to strengthen, and in some respects does bring strength, is now a cause of individual weakness; since it is not the expression or result of individual wants and tastes, but an abstraction, an arbitrary standard. Imitativeness becomes the dominant feeling; but it works without a knowledge of adaptation. Hence in education we see a desire manifested that children and youth should learn every thing and know every thing. The desire is natural, though somewhat extravagant: but the means for its realization,—what are they? The very opposite of those which an acquaintance with the body and mind would have pointed out. They seem to be predicated of a separation, voluntary and complete, for every person, of mind from body; and of the possibility of the former preserving all its freshness and vigour, notwithstanding the languor, decay, and disease of the latter. Hour after hour successive appeals are made to the mind through some one of the senses, as if its exercise were a totally separate and distinct thing from that of the senses, and as if these were not a part of the body. Consistently with this absurd idealism is the practice of abstracting as much as possible the young persons being educated from that world in which they are to live and play an important part. They are required to obtain a knowledge of matter in all its relations, and of the physical agencies by which they are and are to be habitually impressed,—by talking about them, by reading about them, by committing to memory aphorisms about them; but to go abroad, to look at, to feel, to try, and be made to watch, their influences and operation on themselves and others, is not thought of. They are told of penalties, without learning how they are incurred. They are promised enjoyment, without learning how it is to be procured.

We are yet in a state of transition. Principles are begun to be admitted; but a practice contradictory to them is still allowed. Mildness and persuasion with children are becoming popular doctrines, as they ever should be. The natural cheerfulness of these little beings should, we are told, be encouraged, and time and space allowed to them for exercise and amusements. But whilst the tongue of a parent inculcates good temper and an avoidance of passionate violence, the hand holds out some vile compound of cake, pastry, or confection, a substance which, affecting the mind through the stomach, works more powerfully than all lessons, and causes the child to be querulous and unhappy, and to create unhappiness for others. If exercise be recommended and time given, the dress is such as to almost enchain the limbs and to prevent the requisite and varied movements of the body in general. Grace is attempted to be reached through a course of training, the common effect of which must be deformity.

We repeat it: these and analogous evils are beginning to be seen and felt, and a change and a reform are called for. The means of preserving health and of avoiding disease, either taught in separate works or in connexion with systems of education, are now received with great favour. On such topics as health and morals, in which all are concerned, and on which all are called upon to deliberate, it is necessary that there should be a common stock of facts and knowledge, from which to obtain materials for diversified application and under various contingencies. An indispensable part of this stock is a knowledge of the structure and functions of the human body, and of the modifications to which it is subjected by the external agents with which it is placed in contact, from which it draws the materials for its support, the excitants to its movements, and by which, when in excess or irregularly acting, it is diseased and not seldom destroyed. The mind,—the morals and intellect, are also modified by these external agents, or rather through the body acted on by them.

Amongst the works calculated to contribute to this desirable end, of enlightening people generally on the above important matters, we would place the "Family Adviser" of Dr. Coates, especially that portion of it entitled "*Outline of Anatomy*" and "*Remarks on Hygiene.*" The first is a clear and condensed description, with illustrative engravings, of the several parts of which the living body is composed. The second abounds with sound and practical precepts for the maintenance of these parts in their healthy state separately and in their harmonious relations with each other.

Under the head of "Food" the author indulges in very pertinent remarks on the nature and preparation of aliments, and on the importance of their being fairly, we were going to say honestly, introduced into the stomach; that is to say, that regular and complete mastication should precede deglutition. The abominations by the use of tobacco are succinctly noticed; and an explanation is given of the manner in which it is injurious. So long as the present fashions of using tobacco,—unhealthy, unseemly, often disgusting, if not actually bestial, as they are,—prevail, this age cannot reproach those which have gone before it with barbarism or ignorance.

When speaking of the use of *stimulating drinks*, Dr. Coates tells us the two important truths—1. "*Alcohol in its pure state* is a rapid poison, which acts powerfully on the tissues with which it comes in contact." 2. "*Alcohol diluted* is a slow poison, and like most other articles of the same class, may occasionally prove useful in maintaining health or curing disease; but an habitual resort to any of the liquors containing this article, whether the quantity taken be large or small, invariably injures the health, though from the slowness of the approach of its ill consequences, they frequently escape notice, and when perceived, are often attributed to other causes."

Diluted alcohol, as we find it in ardent spirits, is indeed a slow poison, the drunkard who has reached his threescore years and ten, may be heard to exclaim. Alas! not so slow either, will respond the widowed mother of an only son, who has been cut off in the bloom of life by an indulgence in the use of these drinks. Not so slow, will respond the wife who witnesses the rapid prostration of the powers of life, and the deterioration of the intellect of her husband,—a sot in the vigour of manhood. How few, after all, are there of these devil's decoys, these intemperate old men. How exceedingly small the proportion to those who began life with them, and who engaged in a similar course of intemperance.

We might, if it were important in this place, dispute some of the propositions advanced by Dr. Coates on the subject of tropical hygiene, chiefly in connexion with the use of ardent spirits. He admits that the mortality among new comers who use brandy, or any other alcoholic liquor, in tropical climates, is excessive: "so much that it has been said that one-half of all the foreigners settling in Calcutta and its vicinity, die before the expiration of the first year, and chiefly in consequence of indiscretion in employing stimulant drinks which the custom of the country places before them!" But the author alleges—"If the old residents in India were deprived of their brandy, or other stimulus, the mortality among them would probably be raised to the same standard." If by "other" is meant analogous stimulus, and not any of the condiments so largely furnished by nature in those regions, we believe that Dr. Coates is mistaken. Under what circumstances, in regard to regimen, do these persons become "old residents?" Have they, from the date of their arrival, continued to use ardent spirits? If they have, they will claim, under the laws of habit, the necessity of persevering in their use,—as old persons in Europe and the United States have claimed to do. It was once thought to be the height of folly and cruelty to advocate and recommend abstinence from this class of drinks to persons advanced in life, who had always been accustomed to drink them. Ample experience has now shown that, as a general practice, it was not only innocuous, but positively beneficial on the score of health and pleasurable bodily and mental feelings. We may well doubt that the peculiarities of constitution, we should have to call it idiosyncrasies, produced by a tropical climate, are such as to call for hygienic observances, as far as concerns drink, so different from those in northern latitudes.

But again; were we to suppose that "old residents in India" had passed the first period, in that country, in habits of abstinence from intoxicating drinks, which we are assured, on positive testimony, they can and ought to do, if they would live and live comfortably, will it be argued that they should afterwards change their course, and on the plea of old residence and its alleged concomitant wants, have recourse to brandy and water, and its like. Were they to do so, would it not be rightfully argued that, in thus subjecting themselves to a new and diffusible stimulus, one which acts with such power on the nervous and vascular systems, they would renew their early susceptibilities to tropical heat, and the accidents of a tropical climate; in fact, have to go through the process of acclimation a second time.

In this, as in some other important questions, the adage *in medio tutissimus* is by no means of correct and safe application, any more than sundry other maxims not Horatian. It is easy to take up a middle ground in a vexed question; but to be able to show, by sound reasons, that it is the proper as well as the prudent position, is by no means so easy. The difficulty does not proceed from the want of ability of the advocate, but from the want of warrantable premises from which to deduce his inferences. There are refinements of doctrine in one or two pages of this part of Dr. Coates's work which will furnish plausible pretexts for drinking ardent spirits, if not for getting drunk on them, which we could wish had been omitted.

Under the successive heads of Clothing and Cleanliness, Air and Moisture, Exercises, the Food and Exercises of Children, Errors of Female School Discipline, and, finally, of Matrimony, the reader will find a large amount of highly instructive and available matter. It is pleasant and encouraging to see a man of talents and attainments, and a shrewd, albeit peculiar observer, engaged in enlightening his fellow men on these important subjects. That they will thank him, and prove their appreciation of his services to them by an observance of his precepts, we can readily believe, as we sincerely hope.

We have not yet spoken of the third chapter, that between the one on the "Outline of Anatomy," and the other, "Remarks on Hygiene." It contains many useful remarks on the phenomena which are evinced in morbid changes on the living human body: but its title is a misnomer,—it is headed "Physiological Remarks;" whereas, with the exception of the first section on *Nutrition* and *Assimilation*, the remarks are on Pathology, not Physiology. The author alleges, as a reason for this innovation, "that these branches," the latter mentioned, which treats of the operations and actions of the healthy living body, and the former, which treats of the same actions when in a state of disease, "are as intimately connected with each other as is the art of making a watch with the art of keeping it in order." With equal propriety might anatomy be merged in physiology, under the plea, and a very natural and proper one, that we cannot understand nor reason for a moment on the functions or offices without a knowledge of the structure of the organs or instruments by which they are performed. Precisely, because the division between physiology and pathology is general among medical authors, ought it to be adopted by a writer who addresses the unlearned reader. The tyro or novice, in any science, ought not to have his attention taxed with abstruse propositions or terms, the full meaning and explanation of which are not found in the works and language of the teachers of that science. He will be discouraged if he find, on referring to these works and teachers, that what he had thought to be elementary was complex and disputable at the very outset. In the present instance, he will consult most physiological writings in vain for farther elucidation of such topics as "*the reproduction of parts as displayed in the healing of wounds;*" "*symptomatic fever;*" "*irritation and hyper-nutrition;*" "*capillary irritation—inflammation.*" There are, we well know, some works on Physiology in which these matters are discussed; but they are, for that very reason, the ones which could be read or consulted with the least profit by the general reader.

It cannot be expected of us to engage in any thing like a critical analysis of the contents of the second part of Dr. Coates's book, viz., "the Practical Directions for the Treatment of Medical and Surgical Cases." The surgical chapters are evidently written by a person who is full of his subject, and has studied it long and well. If the general reader should complain that the limits are frequently passed beyond which the reasonings and practice cannot be carried out by him, a professional person, on the other hand, and particularly a regular student of medicine, will thank the author for this very copiousness of principles and illustrations.

The strictly medical portion of the work struck us as rather meagre in its descriptions of disease and designation of treatment. But this, which would be a fault in a regular system of medicine written for the profession, seems to us, on second thoughts, to be a positive recommendation to a "Family Adviser." We cannot duly appreciate the manner in which this part of the task has been performed, without bearing in mind the declared intention of its author in preparing it for publication. It is conveyed in the following sentence:—

> "We shall endeavour to engross, in the present chapter, such information only as may be safely and advantageously communicated to the intelligent who are not of the profession, in order to enable them to save human life and suffering where higher assistance is inaccessible or unobtainable in time, without encouraging that rashness which induces the empiric, and certainly the ignorant professional sectaries, to rush into fearful responsibilities, unnecessarily or criminally."

We find, under the head of Fever, many useful directions for the treatment of the patient and government of the sick room, as far as these matters depend upon the direction and kindness of a friend and nurse.

Is the practice recommended in croup that which combines efficiency with easy performance by the mother, or other watchful guardian of the child? We read:—"In domestic practice, where medical advice cannot be instantly obtained, no time should be lost in waiting. Let the little patient be bled very freely at the commencement of the case, unless something in the constitution of the child render bleeding decidedly improper." Then follow directions to bring on vomiting, by the administration of antimonial wine, and, if need be, by the additional aid of the warm bath. The advice, as quoted, takes for granted, that bleeding can be performed in the absence of a physician; whereas the probability is, that there is no person present who can do it. Is it of such indispensable importance as just inculcated? Our own experience prompts to the reply that it is not; and that, in a majority of attacks of croup, present relief and saving of life, and often removal of the disease, with common care afterwards, will be obtained by the use of tartar emetic, to bring on free vomiting. If this result is obtained with difficulty, the patient should be put and kept, if even for an hour, in the *warm*, not *hot* bath. Should the symptoms afterwards, we will suppose on the morning following the night of the attack, show an extension of the irritation to the bronchiæ; and there is hoarseness and dry cough, with activity of pulse, the lancet can then be had recourse to with advantage, and probably with more convenience than in the dead hour of the night in which the disease made its fearful attack.

Calomel, we are told, "should never be employed by the unprofessional assistant" in croup, although it is mentioned as the third of the remedies principally relied on;—these are bleeding, emetics, and calomel. In the next page we read,—"A single dose of three or four grains of calomel at the commencement is both safe and advisable." The mother, who desires to save her child from a second attack of croup, will always, on the morning following the first, administer something which shall freely act on the bowels of the little patient. A dose of calomel as above, followed, after the lapse of two or three hours, by a table-spoonful of castor oil, will generally be found to be both a safe and efficient preventive of the dreaded result just indicated.

It may well be doubted, indeed it will be strongly denied, on the faith of the largest experience, that brandy and laudanum is the remedy for the collapse of cholera, as set forth in the work before us, page 454.

But, as already stated, we do not feel ourselves called upon to pass in critical review the several chapters of "Popular Medicine, or Family Adviser." Our aim has been merely to convey a tolerable idea of the general nature, composition, and tendency of the work.

Lectures on Lithotomy, delivered at the New York Hospital, December, 1837. By ALEXANDER H. STEVENS, M.D., Surgeon to the New York Hospital, and Emeritus Professor of Clinical Surgery. New York: Adlard & Saunders. 1838. pp. 93. 8vo. With four lithographic engravings.

These lectures, two in number, by Dr. Stevens, are on a subject which is ever important to the surgeon. Whilst in the great differences of opinion, as to the best kind of operation for stone and of the instruments to be used, we see any thing but proof of certainty in surgery more than is claimed in medicine, we must still admit the necessity of continued investigation on the subject of lithotomy, and award praise to him who introduces a new means to render it more facile and safe.

In the first lecture, Dr. Stevens thus opens the subject:—"Entertaining, in common with the great majority of surgeons who have lived since the time of Cheselden, the conviction that the best modes of lithotomy involve a division of the urethra and prostate, I shall confine my observations to these alone."

The LATERAL, or, as it is called by the French, the *lateralized operation*, is there described as the one which is now almost exclusively practised.

For the *statistical returns* of the operation, as given in the lecture, it seems that Pouteau estimated the fatal results of operations for stone at 1 in 40. Bichat at 1 in 6, 8, and 9. Cheselden at 1 in 10½. Douglass, Cheselden, and Middleton, at 1 in 6 in the high operation combined with incision in perinæo. M. Civiale estimates the mortality as nearly 1 in 4; Sir A. Cooper at 1 in 7 or 8; and this last is probably a just estimate. Dupuytren gives us the results of notes, taken during a period of ten years, of the cases of operation for stone in public and private practice in Paris and its environs, to be from 1 in 5 to 1 in 6.

"Individual operators have published results far more successful than those here given. Thus, Mr. Martineau of Norwich, England, has published a table, showing eighty-four successful operations to two deaths. It is to be observed that a large proportion of his patients were boys, and some of them females, and that he encountered but two large stones. One of these cases proved fatal. Mr. Martineau operates with the knife after the manner of Cheselden.

"My friend, Dr. Dudley, states, that of one hundred and fifty-three operations he has performed, only four have proved unsuccessful. This result places him first in the list of successful lithotomists. He uses the gorget of Cline—a flat, single-winged instrument cutting on one side—and he never enlarges the opening by a second incision. It will be remembered that neither Mr. Martineau nor Dr. Dudley practised in crowded cities. Nò one can read the reports and dissections of the fatal cases in London and Paris, without being convinced that some of the mortality is owing to causes foreign to the mode in which the operation is performed. Candour obliges me to make this concession; justice to you, among whom are so many who have visited or will visit the hospitals of the great capitals of Europe, obliges me to add, that this operation is often done too much with a view to effect, with a rapidity unnecessarily hazardous, and upon patients either not duly prepared before the operation, or cared for suitably after it. Still I consider the lateral operation as essentially defective and unnecessarily hazardous."

The *causes of death after the operation* are next detailed, and the *objections to the lateral operation* stated. After specifying the difficulties, dangers, and sinister accidents in this operation, even when performed by the most skilful, Dr. Stevens adds, significantly enough—"Such occurrences are more common than mere reading would lead you to suppose; for they are not, like successful operations, blazoned forth in the literature of the day."

The various means of performing the lateral operation are described. The lecturer and author has performed it fourteen times in male subjects, of whom "every one has ultimately got well, and entirely so;" yet he has always felt that the operation was not so perfect as it should be. Whether the beaked bistoury or the gorget be used, is, he thinks, more or less a matter of taste,—but as regards the *bistouri* caché of Frère Côme, he considers it "a dangerous instrument." The knife of Langenbeck, and the straight staff of Mr. Key, are characterized as "awkward instruments."

Dr. Stevens now prefaces to his auditors and readers an account of the *Celsian*, or *bilateral operation*, the one which he prefers, by a description, with diagrams, of the anatomy of the parts concerned in it. These parts are specified and described under twenty different heads in twelve pages of the published lecture. Following this, is a statement of the advantages of the *bilateral operation*. But of this there are three, if not four different modes, which he describes, and offers some reflections on. The Celsian method, proper, is made clearer by a plate copied from Bromfield, the first surgeon, at least in modern times, who seems to have fully understood the text of the directions laid down by Celsus. "More recently, in France, Chaussier, Beclard, M. Ribes, and Dupuytrèn, have construed it in the same way." The description of Dupuytren's operation by himself, is introduced by Dr. Stevens, who adds some cautionary comments.

The second lecture opens with this announcement:—

"I venture," says Dr. Stevens, "to offer to the profession a new instrument for the bilateral section of the prostate; in form it resembles a large olive, with a beak at the extremity, with cutting edges at the sides, parallel to its longest axis, and with a straight handle. The instrument, of which there are three sizes, and the manner of employing it, will be readily understood by the annexed engravings. The grooved staff employed in connexion with this instrument, is as wide as the urethra will admit, and the groove gradually terminates as it approaches the end of the staff."

Room is not allowed to us for detailing, after its inventor and the author, the *advantages*, from the use of this instrument, or the *mode of operating* with it. Our aim is to direct the attention of the surgeon, and of the professional reader, properly curious in such matters, even though he may not propose to operate himself, to the gist of these lectures, a substitute for the perusal of which we do not pretend to give in any notice of ours. Two cases are detailed in which Dr. Stevens used this "prostatic bisector."

After this, the following points are noticed in the second lecture:—*Preparation and choice of season for the operation; sounding; sounding the patient on the table:* under this last head some cases and useful practical remarks are introduced;—*extraction of the stone; obstacles to the extraction of the stone*—a valuable section; *infiltration of urine; hemorrhage; inflammation of the bladder; the operation in children; lithotomy in the female.* Dr. Stevens concludes, "that almost all calculi may be removed from the female bladder, either whole or broken, by dilatation alone."

In the plates are exhibited figures of the "prostatic bisector," of the deep portion of the perinæum, and of the mode of introducing the prostatic bisector.

As already intimated, we should suppose that a desire, or rather a feeling of duty on the part of all surgeons, surgical readers, and students, would prompt them to procure, and carefully peruse, these lectures of Dr. Stevens, who will, we hope, continue the course in which he is now engaged, of enlightening the profession on the chief matters in clinical surgery.

DR. CALDWELL'S PROTEST.

It will be seen by the following letter, addressed to the Editor of this Journal, that Dr. Caldwell has very gravely taken exception to some remarks made in a former number on his Commemorative Memoir of Dr. Physick. In giving insertion to his protest, we beg, however, to be distinctly understood, that if our comments on pamphlets sent to us, with the expectation and wish on the part of their authors, that they should be noticed, are to draw on us the infliction of as many pages of reply and explanation as there were sentences of criticism, we must e'en forego our office of reviewers, and become plain recorders of the titles of works sent to us. There is yet another method which might, indeed, be pursued, if happily it were not becoming wearisome and nauseating by the extreme to which it has been carried, in its unceasing and indiscriminate application. It consists of such notices as the following, no matter whether the new production be essay, speech, sermon or lecture, a book of poems, or a quarto on natural history or theology:—*We congratulate the author and the public on this display of his characteristic ability—composed in his happiest manner—redolent of genius—with his usual profundity and learning—hit off in his peculiarly happy vein—such felicity of thought and purity of diction—worthy of his former and well-earned reputation—all that we expected; but, no! it surpasses expectation, and if it were not before us would stagger belief—with the philosophy of Socrates, and the pomp of eloquence of Plato—the Stagyrite outdone, and ethics and criticism and logic placed upon a new and firmer basis than the Peripatetics ever dreamed of in their fondest imaginings, when they walked in the Lyceum with their great master—we defy the most searching criticism to detect blemishes; there may be spots, indeed, but they are like those described by Milton,—dark from excessive light, &c. &c.* These, and some other expressions of a kindred character, might be stereotyped and numbered; and the author, when sending on his work, could designate what number or numbers he would like to have placed after its title. As good and as definite an idea of the precise nature and real merits of a production would be conveyed by this process to the reader, as in many of the notices in the Journals of the day.

We have yielded space to Dr. Caldwell for his protest; not because we think it at all necessary for his justification, since the issue, veracity, is of his own making, not ours; nor because of any novelty of view in illustration by which he attempts to strengthen his former positions. But some indulgence is due to his age and long services, as author and teacher in the profession; and on this score, and this alone, we have been induced to insert his letter.

If amplification were argument, and iteration proof, Dr. Caldwell's letter would convince us that the opinions we held on some parts of his Discourse were erroneous. We did not, nor do we call in question his accuracy as historian; but we did, and do still, his judgment in straining inferences from the facts detailed. The difference between us is in extent of faith. We have little faith in the soundness of the evidence which satisfies him. We refer now to the alleged rivalry between Jenner and Physick, when students of John Hunter; and to the supposed origin of the zealous and successful prosecution of morbid anatomy at the present time in Europe in the dissections made by Dr. Physick of persons dead of the yellow fever, in Philadelphia, in 1793.

Dr. Caldwell taxes us with defective knowledge of the history of medicine at the close of the last and beginning of the present century. The accusation may be well founded; but the only additional sources unknown to us, to which the Doctor refers, and by which he would convict us, are the newspapers of that time. We readily admit that we have not read the valuable contributions to medical science which were given then, as we know them to be now, with such proverbial accuracy and satisfaction, in the newspaper press.

We have not the time nor room to inquire into the immediate cause, or causes, of the passion for morbid anatomy, in France, particularly. But we believe that it would be just as easy, and not a whit less so, to prove that Napoleon was indebted to Washington for his admirable strategy and tactics, as to show that Broussais, Laennec, Andral, Louis, &c., and the modern school of Paris, derived their desire to prosecute those researches which have conferred on them such celebrity, from Dr. Physick's *post mortem* examination of some of the persons who died of yellow fever in 1793.

Philadelphia, Washington House, March 29, 1838.

DEAR SIR:—In turning over the pages of "The Eclectic Journal of Medicine," for the present month, I perceive that you have honoured with a notice my "Discourse commemorative of Dr. Physick," and spoken of it in terms more commendatory, perhaps, on the whole, than the production deserves. On certain points, however, you have availed yourself of the privilege of the reviewer with sufficient freedom, and in a tone sufficiently magisterial and dictatory, to animadvert on what you are pleased to designate by the milder name of "blemishes," instead of the harsher one of faults.

For this courtesy and forbearance I should feel bound to thank you, were it not for a conviction, which has possession of me, that the "blemishes" spoken of were in the *fancy* of the reviewer, rather than in the matter of the pamphlet reviewed. I say, the "matter;" for had the censure been passed on my style, or manner, or on both united, I should have neither complained nor remonstrated. Those qualities of composition belong to mind alone, and would have been in a condition to speak for themselves, either in defence or submission; and each reader could have formed in regard to them his own judgment, and condemned or approved according to his taste. As respects the matter of the Discourse, however, the case is different. That involves morals. It is an affair of neither taste nor judgment; but of truth and accuracy, or of untruth and inaccuracy. As respects Dr. Physick, I have either laudably adhered to truth, or culpably departed from it: my task furnished no neutral ground; for I stood in an attitude in which fiction was forbidden me. Without, I must believe, therefore, positively intending it, you have virtually called in question my veracity. To an imputation like this I cannot submit. My opinions respecting Dr. Physick may be erroneous: not so, however, with my statements of facts. When made without qualification, they are true. As far as human testimony, and my own observation may avail, I know them to be so; else I would not have made them. To indulge, however, no farther in general remarks, but to come at once to specifications.

You discredit my representation of the high competition between Physick and Jenner, when fellow-pupils in the house of Hunter; and you do so on ground which is not only untenable, but extraordinary and surprising.

Under this head my first reply is plain and positive. My information on the subject was derived from the most unquestionable sources. The facts of the competition between the two pupils were communicated to me both in Philadelphia and London, by men of unimpeached veracity, who witnessed the struggle, and heard it spoken of by Hunter himself.

To this statement you neither do nor can possess and present a contrary one; because nothing of the kind exists. With what then do you oppose it? A mere show of pretended reasoning, fundamentally groundless, and not only different from your usual efforts, but far inferior to them. Let it here speak, as best it may, in its own defence:—"The early tastes and predilections of these two young men (Physick and Jenner) were as different as was their subsequent professional course. Jenner was fond of natural history and comparative anatomy and physiology, and took small interest in surgery. * * * Physick was devoted to surgery, and cared for and studied little else."

Let me here, by the way, put a question or two, and solicit answers. Who ever before heard of a young man studying surgery as Physick studied it, and nothing else? What are the fundamentals of surgery? Anatomy and physiology, healthy and morbid. And these branches Physick is known to have studied, with an accuracy and an intensity surpassed by few, if by any one, of his day. That this is true as respects human anatomy, nobody doubts; and that it is also true in relation to comparative anatomy, is perfectly known to those who associated with Physick on his return from Europe. He was at that period by far the best informed comparative anatomist in the city of Philadelphia, if not in the United States. In fact, when fellow-students in London, his studies and those of Jenner were, in principle, the same: in application only did they differ. The young Briton applied them more to natural history; the American to surgery. No house-pupil of Hunter was ever suffered to neglect physiology and comparative anatomy—especially no favourite pupil; and such was Physick.

But admit that the studies of Physick and Jenner had been different—the one devoted to human anatomy and surgery, and the other to comparative anatomy and physiology—what then? Does it necessarily follow that the two students could not have been rivals for general reputation and standing? Assuredly not. Each might have still striven with equal zeal for his own honour and that of his country. This might have been true, had the one even studied law or divinity, and the other medicine. Perhaps such competitions are of more frequent occurrence than those between individuals pursuing the same study. That they have occurred, I myself can solemnly testify. I have experienced the sentiment which prompts them myself; and so has every young man of pride and ambition, who, during his studies, has mingled with his equals in age whose studies were different.

Your fancy that, when young and in a foreign land, Physick could not burn with a desire to do honour by his attainments to his native country, and contribute to the utmost of his ability to protect it from the scoffs which were then levelled at it, is, to me, most extraordinary. How any American, in his situation, could have done otherwise, is a problem which others must solve. I cannot solve it. Can you? As well can I conceive of a young American receiving a blow from an equal in a distant land without returning it. Nothing short of a spiritlessness, degrading and contemptible, could lead to either issue.

Your sneer, or witticism, on this point (call it which you please—one name for it is about as good as another) I forbear to notice, for a substantial reason:—I cannot descend to its level. A reply to it would be as unworthy of me as its perpetration was of you. Let it pass, therefore, for what it is worth; and I do not believe there will be much difference of opinion about its value.

You treat with like courtesy and justice my position, that Physick was highly instrumental in giving rise to the wide-spread scheme of *post mortem* inspection, which has everywhere prevailed since the year 1793. Permit me to tell you, that on this topic your knowledge is necessarily defective. You were not an observer of what occurred in Philadelphia in 1793; nor are there any books in existence competent to inform you. None were written on the subject at the time. The medical measures and transactions of the day were recorded only in newspapers, until Dr. Rush published his first work on Yellow Fever; and I do not remember that he said anything about dissections of the dead. To that process he had not been himself accustomed, and paid to it therefore but little regard. In truth, no one was really accustomed to it at that time, because the custom did not exist. Rarely did any one engage in it; and the few who did so were but novices in the business, and therefore performed it in a manner neither dextrous nor profitable. It is since that period that adroitness in dissection, and skill in morbid anatomy, have been acquired. I repeat, therefore, that during the epidemic of 1793, examinations of the dead began in Philadelphia with Dr. Physick. The results of his dissections being made known through the newspapers, similar examinations were afterwards made in New York and Baltimore. They were next practised in the West Indies; then in Europe, especially in the French military hospitals; and afterwards in all hospitals and all places. And I further repeat, that one of the thousand benefits which Napoleon conferred on his race (amidst the devastations which he produced by his arms), arose from his exacting from his medical staff the reason why his soldiers were destroyed by disease. That exaction led to *post obit* inspections, to an extent which had never been thought of, much less unpractised, before. Look into the details of Napoleon's campaigns in Italy and elsewhere, and you will find that I am correct. Reverting, then, to the active and earnest commencement of dissections by Dr. Physick, in 1793, you will perceive that the poet understood something of logic as well as of song, when he exclaimed:—

> "What great effects from little causes spring!
> What mighty (charges) rise from trivial things!"

In your phrenological witticism on this point, permit me to tell you that you are somewhat at fault. Speaking of my account of Napoleon's measures, you say:—"We confess ourselves unable to follow this circuitous and yet rapid course of ratiocination. Were not Ideality and Marvellousness more active than Causality, when the biographer prepared this part of his Discourse?"

The "biographer" answers decidedly, No! He was not preparing anything calculated to call into action either Causality, Ideality, or Marvellousness. He was writing sober history. With neither logic nor romance had he any concern. Your knowledge of phrenology must, therefore, vindicate him, by apprising you that Eventuality was the organ in whose exercise he was chiefly engaged.

Your notice of my Discourse has informed me of two things to which I was previously a stranger: 1. You did not know Dr. Physick as he was; 2. You are less accurately versed in the history of medicine, at the close of the last, and the beginning of the present century, than I had supposed you to be. Had you studied both topics with more attention and accuracy, you would have saved yourself the trouble of at least a part of your critique, and me the trouble of the whole of this reply.

One of your expressions, in which you impute to me an "example of violent straining for effect," is not only groundless, but in other respects exceptionable. It is discourteous. I am no strainer for any purpose; and I aim at no other "effect" than that produced by plainness and truth. I knew Physick, moreover, too well to require the information you have deemed it necessary to impart —that he did not need to be bolstered up by "suppositious merit." I have even read somewhere, and have not forgotten the sentiment, that

> "Praise undeserved is satire in disguise."

And, in preparing my Discourse, it was not my design to satirise Physick; nor have I done so by unmerited encomium. He deserved all I pronounced on him. I say now, moreover, what I omitted in my commemoration of him, that he was one of the ablest physiologists and pathologists I have ever known. In those respects he possessed not a little of the spirit and qualifications of his great master.

In conclusion, Dr. Physick was not a man of that "unimaginative" limitedness of mind, and narrowness of pursuit, that you represent him to have been. Far from it. His mind was active and clear, expanded and powerful; and he had fancy enough, and pleasantry enough, not to call it wit, when he chose to indulge them. His mind, moreover, was stored with various sorts of knowledge. But he conversed little, and wrote less; hence the stores of his mind were but limitedly known. Might I judge from your editorial remarks, I would feel authorised to say, that you knew him only professionally; and in that capacity he was indeed "unimaginative." Nor would either you or myself, perhaps, have been the worse, had we followed a little more closely than we have done, the invaluable example which, in this respect, he set us in medicine.

Dr. Dorsey knew Physick better, perhaps, than any other man; and I have heard him asserting, once and again, his full conviction, that had his uncle pursued any other line of professional or public life, he would have been, as he was in physic—a leading man;—and I concur in the opinion. This you may say was but the sentiment of a nephew and a friend. True; it was so. That friend and nephew, however, was no less distinguished by truth and candour than by sagacity and judgment. His opinion, therefore, respecting Physick, was far more valuable than either yours or mine. With this I close my hasty reply, and am, Dear Sir, very respectfully,

Your obedient servant,

CH. CALDWELL.

DR. CARPENTER'S OPERATION OF LITHOTOMY.

We have received from its author, with a request that we should insert it in our Journal, a printed copy of a letter from Dr. Abraham Carpenter, of Lancaster, to the Professor of Surgery in the Jefferson Medical College of this city. More justice will be done to all the parties by our stating briefly the subject and substance of this letter. It is a protest against certain expressions alleged to have been used in a lecture by the Professor of Surgery aforesaid, disparaging to the surgical skill of Dr. Carpenter, in the case of a boy on whom the high operation for the stone was performed by the latter gentleman.

In reply to the charge that there was no stone, and, by implication, of course, that the operation was unnecessary and cruel, Dr. Carpenter states, in the letter, that he "did operate, (as recorded in Gibson's Surgery, art. Lithotomy, p. 232,) upon a boy named Moore, then eight years of age, in the presence of Doctors Muhlenberg and Moore, and several other gentlemen, and extracted two calculi, one of which was encysted;" and he "did, for several considerations, adopt the *high* operation recommended by Sir Everard Home." Dr. Carpenter ends by saying, "that though success is not always a proof of talents or of skill, the boy upon whom I operated is living in Drumore township, in this (Lancaster) county, a fine, hearty fellow, about eighteen years of age."

MEDICAL GRADUATES.

At the Commencement held on Friday, April 6th, 1838, the degree of Doctor of Medicine, in the University of Pennsylvania, was conferred upon a hundred and forty-four gentlemen. Thirteen had received the degree in July 1837, making in all, 157.

At a public Commencement of the Jefferson Medical College, held on the 8th of March, one hundred and three gentlemen received the degree of Doctor of Medicine.

The number of graduates in the Louisville Medical Institute, made at a public Commencement on the 2d of March, was twenty-four.

The following have been received, and will be noticed more fully in our next:—

Twenty-first Annual Report of the State of the Asylum for the Relief of Persons deprived of the Use of their Reason. 1838. pp. 21. With an Engraving.

Transactions of the Medical Society of the State of New York. Vol. IV. Part I. pp. 56. With Appendix. pp. 24.

Southern Medical Journal, for February, 1838. No. VII. of Vol. II.

THE ECLECTIC

JOURNAL OF MEDICINE.

Vol. II. JUNE, 1838. No. 8.

[From the Medico-Chirurgical Review.]

ON THE TREATMENT OF THE VENEREAL DISEASE BY MERCURY.*

II.

We devoted some pages in the last number of this Journal to a highly important practical subject—the treatment of Syphilis by Mercury. If our readers will refer to the article in question,† they will find, or they may recollect that we examined the comparative merits of the mercurial and non-mercurial methods, and expressed our opinion in favour of the former. We then proceeded to two chapters of Dr. Colles's work—the one containing an account of the "Natural History of the Venereal Disease," the other occupied with a description of "Chancre" and of "Chancrous Sores."

We shall now resume the subject, in conformity with the pledge we gave, and we shall endeavour to present to our readers a series of notices on a disorder as frequent, as serious, and as difficult to be understood and treated, as any that afflict mortality.

It is much to be regretted, that Lock Hospitals are not more numerous and more extensive than they actually are in Great Britain. In the Metropolis of the Empire—a city with nearly two millions of inhabitants,—the solitary Lock Hospital is without funds to support patients, and without pupils to become acquainted with disease.

It is true that venereal wards exist in some of the General Hospitals. But they exist on a limited scale, and being subordinate to the other departments of the institution, they do not, and cannot, receive that degree of attention from the medical officers or from the students, which alone can qualify the former for enlarging our knowledge of the malady, or the latter for learning what is actually known.

The nature of venereal disorders, and the character of the generality of the patients, render their admission into General Hospitals a matter of questionable policy. The patients themselves can never be adequately separated from the common patients. Respectable females mingle with whores, and become familiar with vice. The moral pestilence, nay the physical disease, is constantly communicated, and the young girl who went into the hospital a simple maid, too often comes out an incipient prostitute. On the whole, it must be owned that the plan of appending venereal wards to General Hospitals, has certainly done little good, and probably much evil. Science has not gained, and morality has suffered.

The reason why the Lock Hospital of London is unsupported may be readily divined. Conscientious people, the usual subscribers to charitable institutions, are averse to maintaining one which they conceive holds out impunity and a premium to vice. They think that syphilis, unlike many maladies, is a direct and proper punishment for sin, and that the hand of pity should not be extended to the sufferer from a guilty act.

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* I. Practical Observations on the Venereal Disease and on the Use of Mercury. By Abraham Colles, M.D., one of the Surgeons of Doctor Stevens's Hospital, and lately Professor of Surgery in the Royal College of Surgeons in Ireland. 8vo. pp. 351. 1837.

II. The Works of John Hunter, F.R.S., with Notes. Edited by James F. Palmer, Senior Surgeon to the St. George's and St. James's Dispensary, &c., &c. In Four Vols. Illustrated by a Volume of Plates, in Quarto. Vol. II. London, 1835.

† See Eclectic Journal for May, p. 241.

We respect the motives, while we cannot concur with the reasoning of such persons. We must take the world as it is, not as it should be. If allowing persons of the lowest class to shift for themselves when affected with venereal maladies, would in any degree discourage vice and prevent such maladies, the refusal to establish charitable institutions for their relief would be reasonable as well as right. But the tendency to venereal indulgences is too strong to be repressed by such distant inconveniences, and the man or woman who failed to be restrained by other considerations, would not be so by the reflection that there were no Lock Hospitals.

The idea of preventing venereal indulgences and venereal disorders is perfectly ridiculous. But the community has a strong interest in mitigating an evil which cannot be averted, and in taking care that both its moral and its physical constitution suffer as little damage as possible:—ne quid detrimenti capiat res publica.

It is more easy to conceive than to describe the consequences of allowing syphilis to ravage the lower classes of society, without eleemosynary medical interference. Those ravages would speedily be frightful, and the worst forms of phagedæna would undoubtedly prevail to a desolating extent. It is not difficult to suppose that the evil would not stop here—infectious complaints of new descriptions would probably be generated—and the world might see a second time such a pestilence of lues as once carried death and terror on its wings. The disease originating in the lowest class would not long be confined to it, for sexual indulgences confound all distinctions, and a whore in the Haymarket not unfrequently poxes the son of a Peer. Those very persons who, from pious motives, reprobated the idea of pouring the oil of charity into the "foul" ulcer of the pauper, would be not unlikely to find in the mutilated bodies of their own children, the consequences of their overstrained scruples.

All practical people must come to the conclusion that the only mode of keeping down the nuisance of venereal diseases in the poor, of extending humanity to them, and, at the same time, protecting the community, is by institutions of the character of Lock Hospitals. We have already pointed out the disadvantages of foul wards in the General Hospitals. If the system of voluntary contributions shall prove, as we suspect it will, inadequate to maintain Lock Hospitals, the government is imperatively bound to interfere, and the nation must save itself from the consequences of national infirmities.

We have hitherto looked at the question as one of morals and police. But it must be regarded in a scientific sense, and that a very important one. The disease is complicated in its phenomena, difficult to be treated, destructive when not treated well, and of every-day occurrence in all classes. Surely, then, medical men should enjoy some opportunities of seeing *en masse*, a malady which they will certainly be called upon to combat, and which will injure their patients materially if they do not thoroughly understand its management. This is a self-evident proposition. But, in reality, the very converse is acted on, and nine out of ten of those who go into practice have to learn all they *can* learn on the persons of the patients who are to come under their care. This may, for aught we know, be agreeable enough to those patients—the Public. Agreeable or not, it is the fact, for either there is no Venereal Hospital, or there are no pupils at it, or, if there are foul wards, the pupils are, for all useful purposes, excluded from them.

We have been tempted, by the importance of this subject, to say more on it than we at first intended. We return to what more strictly concerns us—the mode of administering mercury in syphilis.

ON THE ADMINISTRATION OF MERCURY.

Dr. Colles devotes two chapters—fifty-one pages—of his book, to the examination of the question—how is mercury to be given so as to effect most good and least injury? A question of no little difficulty and no little consequence.

"It will be readily conceded," observes Dr. Colles, "that the efficacy of any remedy in the treatment of disease must in a great measure depend on the accurate knowledge which the practitioner possesses as to the most judicious mode of administering it; this position, which is true in respect even to the most simple and innocuous medicine, will be found to apply with peculiar fitness to the use of mercury, when we reflect on the astonishing powers of this substance, its great superiority over every other medicine in the cure of certain forms of disease, the different results it is capable of producing, according to the mode in which it is administered, and, above all, when we consider that in the hands of the ignorant and the injudicious, it will not only fail to remove that complaint for which it had been prescribed, but may induce other diseases of a still more intractable nature, and that it even may, as too often has been the case, cause the sudden extinction of life."—P. 25.

It is obvious, that, in order to treat syphilis by mercury with the best chances of success, it is necessary to be well acquainted with the phenomena of the first, and with the properties of the second. Until the surgeon has that acquaintance with both, he will assuredly do much mischief, and probably but little good.

Dr. Colles insists on the necessity of preparatory treatment prior to the commencement of a mercurial course. The older surgeons carried their precautionary measures farther than is usually thought necessary now.

"Those measures," observes our author, "were not confined to plethoric and robust individuals labouring under primary symptoms, (such persons were soon reduced by bleeding, purging, warm bathing, and low diet,) but they also very judiciously extended the principle to those cases where the health appeared broken down, and where the venereal disease was accompanied by some morbid state of the system, not necessarily arising from that disease. At the time when I commenced the study of the surgical profession, this practice was not entirely extinct; every venereal patient on his admission into hospital, was then, as a matter of course, ordered to be bled once, to be purged four times, and to have the warm bath twice in the first week, and not until all these directions had been complied with, was the use of mercury commenced. In the course of a little time the practice of bleeding was confined to those cases in which active inflammation attended on chancre or bubo, but still that of purging, warm bathing, and low living was in all instances strictly adhered to. In cases of secondary symptoms, in enfeebled and reduced habits, I never at that period saw any sort of preparatory process adopted."—P. 26.

After some observations of a general character, Dr. Colles draws a picture of the folly and mischievousness of prescribing mercury because a sore is syphilitic, without inquiring what states accompany the sore and whether they are not likely to be aggravated by the remedy. It is indeed both lamentable and surprising to observe the want of discrimination too frequently evinced in the prescription of this medicine. If a surgeon believes a sore to be syphilitic he orders mercury as a matter of course, because it is *the* specific. That word specific has blinded him. Had mercury been an ordinary medicine, and given for an ordinary malady, he would have reflected on what its operation was, and whether that operation would be proper. But being a specific, that resolves all doubts, or rather it prevents any, and the common dictates of experience and good sense are no longer carefully consulted. Will not many of our readers confess with a sigh the truth of the following case?

"A young plethoric man," says our author, "who has been pursuing a dissipated course of life, and pronounced by a surgeon to have a venereal ulcer and bubo, is directed to commence at once the use of mercury, either externally or internally: no previous measures are adopted, except possibly one dose of some cathartic medicine, no injunctions as to the necessity of rest and quietness, and confinement to the house, no alteration in his diet, in fact, no attempt to reduce the inflammatory and plethoric state of his system; but because he is young and healthy, and free from any of those diseases which appear in our nosological arrangements, he is therefore considered as in a fit state for the immediate use of this powerful medicine. Could I now induce such of my readers as have had

practical experience, to recal to their recollection some of those cases of young men who have been thus hurried into a course of mercury, without any preliminary attention to their state of health, or without any particular instructions as to their mode of living; I have no doubt that every practitioner could adduce many instances in which their expectations of a safe and speedy cure have been disappointed; how frequently have they witnessed in such cases, that although the mercury acted on the salivary system, the ulcer assumed, not only a very unhealthy, but even a very novel and peculiar appearance, one which has sometimes caused them to doubt the correctness of their first opinion, as to its venereal character, and has induced them to lay aside the further use of mercury!"—P. 29.

Both reason and observation may assure us that a disease like syphilis, evincing always a strong tendency to inflammatory complications, yet leading, like all specific poisons, to a debilitated state of system, cannot be treated uniformly by any remedy of any sort. In the early stages, we must look for inflammation, and guard against its occurrence—in the later stages, we must expect debility, and adopt those means which will diminish it. According to the constitution of the individual the inflammatory tendencies will preponderate in one case, the weakness in another; while, in a third, the most troublesome case of all, we shall meet with that peculiar state, which we know as irritable, influencing remarkably local conditions, and requiring all the care and all the knowledge of the surgeon to contend with it.

Preparatory treatment we take to consist essentially in this:—the evil tendencies of a disorder, and the effects of the remedy adapted for it being known, to bring the constitution to that state which shall be best suited for diminishing the former, and for promoting the latter. In the instance of syphilis the first thing to be apprehended is inflammation, the second is debility. Preparatory measures, then, should be such as will tend to diminish inflammation, without unnecessarily debilitating the individual. In point of fact, it is from such preparatory measures that we have seen good, and such we invariably employ.

It appears to us as absurd to subject all kinds of persons with primary symptoms to one plan of preparatory as to one plan of continuous treatment. The means adopted by the older surgeons, of bleeding, sweating, purging every patient at stated times, are on a par with the directions of the physician in the play, "to vomit the North Ward, and to blister the South." This Procrustian *methodus medendi* is ridiculous in the eye of reason, and injurious in the hand of practice.

As different individuals have different habits and predispositions, and as syphilitic sores themselves vary in their characters and their inflammatory tendencies, the amount of preparatory depletion must also vary. It is for the surgeon to determine that amount in each particular case. But we would insist on this caution. He has before him a disorder which must run a certain and not a brief course—which must debilitate his patient more or less—and he has before him too a remedy which, however stimulating in some senses, must, in the long run, debilitate his patient also. Let him then husband the constitutional resources of the latter. If he draws an ounce of blood unnecessarily, its loss will be sensibly felt; not, perhaps, at the time of its abstraction, but still it will be felt.

We have seen a good deal of syphilitic complaints in all classes of society, and, in London at all events, we decidedly object to active depletion as a precautionary measure in the majority of cases. Aperient medicines, where the bowels are not irritable, diaphoretic salines, quiet, and moderate low living, are the means which we find adapted for the bulk of patients. These means pursued for a few days, in some cases more and in some less, are usually sufficient to reduce all inflammatory disposition, and to pave the way for the mercurial course. The local applications should correspond with the general treatment. While we open the bowels and prescribe salines, we order diluted black-wash, or even a bread and water poultice for the sore. It is rarely that these measures are not adequate for the prevention of any untoward phenomena.

Suppose a patient properly prepared, the sore uninflamed, the secretions in good order, the system in a tranquil state. He is to be put on a course of mercury. What are we to expect from it—how do we intend to exhibit it? This is a matter of some consequence. Let us turn to Dr. Colles. He reasons thus:—

"When mercury is exhibited for the cure of any other disease, as well as for Syphilis, we shall find that its sanitary impression on the disease is contemporaneous with its action on the salivary system, and that when the latter effect has not been produced, neither will the former have occurred. Thus in cases of acute inflammation of a joint, or of the dense membranes of the eye, we find that the progress of the disease is arrested the moment the salivary system becomes affected; and even in cases of other diseases, which cannot be considered as purely inflammatory or acute, the same remark will be found to hold good: thus, in cases of orthopnœa depending on disease of the heart, with effusion into some of the thoracic cavities, and in which we commonly prescribe mercury in combination with squill and digitalis, the patient is not at first sensible of any improvement, but almost invariably, as soon as the gums become affected, he experiences relief, and perhaps the very next morning after this occurrence he tells us with joy and gratitude that he is considerably better, that he has passed a night of refreshing sleep, and that he has been able to do what he could not have done for weeks previously, namely, rest in the recumbent posture without any of that distressing and alarming sense of suffocation under which he had previously laboured, and which always supervened the moment he sunk into that position. It is unnecessary to particularize many other diseases in which the same fact occurs; indeed it may be asserted as the general rule. The contrary also will be found equally true: that is, that mercury will not prove serviceable in any disease for whose cure it has been prescribed when it does not produce its wonted effect on the salivary system. How often has this been verified during that time, when it was the fashionable practice to prescribe a course of mercury in all chronic affections of the liver? It then happened over and over again, that slight delicate females have been subjected to this treatment; friction perhaps has first been tried, and this failing to relieve the complaint, (because it had also failed to affect the salivary system,) the internal use of mercury has then been substituted, or probably combined with the former; thus the medicine has been persevered in, and the doses increased, even to an extravagant degree, but yet withal no salutary effect has been induced; on the contrary, the little remnant of strength has suffered so materially, that at length the mercury had been laid aside, and the friends, as well as the medical attendant of the patient, have had reason to express, not only their disappointment, but also their amazement at the inefficacy of the mercury, of which the patient had taken fully as much as would have sufficed to salivate at least half-a-dozen young and vigorous men. If then it be so very generally found, that whenever mercury exercises a salutary influence over disease, it at the same time always affects the salivary organs; and if again whenever it fail to produce this latter effect, it be also found altogether inoperative in the cure of disease, it is surely a fair and legitimate conclusion to affirm that ptyalism marks the natural and salutary operation of this mineral."—P. 33.

To a certain extent these propositions may be granted, and they may and do constitute an *à priori* reason for supposing that salivation is as requisite for the cure of syphilis, as for the cure of other maladies which mercury actually does cure. Dr. Colles proceeds to apply the analogy, and in some degree to qualify it.

"Let it not however be inferred from the foregoing statement, that I would wish to measure the efficacy of mercury by the amount of salivation which it excites; on the contrary, the degree of ptyalism that I am always anxious to attain, is merely an increased secretion of saliva, accompanied by swelling and superficial ulceration of the gums, and sometimes also of portions of the lining membrane of the cheeks and lips; this I am desirous of attaining as a sort of index which denotes first, that the mercury is acting in a safe and salutary mode upon the system; and, secondly, that it displays that degree of power or energy of action, which will be sufficient to eradicate the disease: so certain do I feel of the correctness of this view, that during a course of mercury for the cure of Syphilis, should this ptyalism be suffered to decline for some days, I should fear that all the additional mercury which may have been subsequently given in this more feeble manner would prove useless, that is, unequal in the cure of disease."—P. 33.

However specious the analogy between syphilis and other maladies curable by salivation, it is clear that experiment and experience only can really decide the point. We cannot agree with Dr. Colles. We do not find it necessary to produce ulceration of the gums, nor do we believe that any quantity of mercury *minus* that which occasions this ptyalism must prove useless. This is a matter of fact, not of reasoning—of observation, not of hypothesis.

Salivation being an evil, it is of course an object to dispense with it if possible. All surgeons, in the present day, concur in admitting that salivation to any amount is unnecessary. It cannot, in the moderate way in which it *is* employed, do much in removing disease, but is rather an indication that the constitution is under the influence of the medicine. If this be so, why should we suppose that a quantity of mercury, insufficient to occasion salivation, but continued for a longer time than when salivation is effected, exerts no influence on syphilis? We see no valid reason for that supposition; and so far as our observation has extended, it has countenanced the idea that mercury given short of salivation does cure the disease.

We do not wish to be misunderstood. We do not recommend very small doses of mercury; but we think, that if this medicine is given to the extent of making the gums a little sore and spongy, and of slightly increasing the salivary secretion, and if by the continued administration of mercury *that* effect is kept up for a certain length of time, a reasonable security against secondary symptoms is obtained, with very little detriment to the general health of the patient.

We see a considerable number of patients affected with primary syphilis. We never purposely *salivate* them; yet we very rarely indeed find secondary symptoms follow. If we may venture to draw a comparison, which will appear to be tinctured with vanity, and must be surrounded with uncertainty, we should say that we have fewer cases of relapses than most of the surgeons with whose practice we have become acquainted. But although we do not salivate, we take care to submit the patient to the mercurial influence for never less than five weeks, and frequently for a longer period; and we take care also to see that no induration, nor any morbid appearance, is left in the cicatrix.*

The regimen of patients during a mercurial course is a subject of considerable importance. In former times, as Dr. Colles observes, it was the custom to have the patient covered with a thick flannel, or woollen cloth dress, and the head even covered with a sort of hood, so that the face only was exposed; he was also confined to a very warm, close room, from which the external air was most carefully excluded. The consequences of such a system were prominently shown in the furious salivations, the emaciated figures, the pallid looks, the occasional mercurial erethismus, the still more frequent cachexia, which patients formerly displayed.

Mr. Hunter was instrumental in changing the system; but, as he contended that diet exercised no influence at all on the specific action of mercury, he only substituted one error for another. Still the world is deeply indebted to him; for the error he has introduced is incomparably less mischievous than the one which he exploded. On this point we quite dissent from Dr. Colles, who conceives that the system of our ancestors was the better one. "The proof of the pudding is i' the eating," and the proof of the present system being the better one, is the acknowledged diminution of those terrible cases which were formerly so rife. That diminution must in fairness be ascribed in part to the alteration in the regimen and management of patients, as well as to the alteration in the mode of exhibiting mercury.

Our readers must not, however, suppose that Dr. Colles is an advocate for acting on the wisdom of our ancestors in this case. He admires, but literally comply with its precepts.

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* There are some sores attended with a degree of induration, which no reasonable quantity of mercury will remove. But such instances are the exception, not the rule.

"Should our patient," he remarks, "appear debilitated after the mode [illegible] the desirable degree of ptyalism has been induced, then we may safely allow him a full and generous diet, from which, however, I would still exclude all stimulating food or drink; moreover, if about this period the patient's strength fail, or if the local symptoms do not improve as we had expected, we may then combine with great advantage bark and opium with the mercury, while at the same time we should reduce the doses of the latter."—P. 35.

Dr. Colles, from his time of life as well as his position, has necessarily seen much. Not only has he witnessed a good deal of the venereal disease, but he has witnessed also great revolutions in the treatment of it, and can tell us of bye-gone times. The following quotation, though lengthened, will interest our readers.

"When I call to my recollection the results of my own observations on the treatment of this disease, made thirty years ago, and compare it with that of the present day, I think the comparison speaks decidedly in favour of the plan which was then pursued. For some years after I entered on the study of the profession, a surgeon felt himself rather humbled if he allowed a venereal bubo to suppurate; and if secondary symptoms appeared, he was considered to have mismanaged the case, and not unfrequently lost for ever after the total confidence of his patient. It is true, that at that time mercury was often used in excessive and in dangerous doses, salivations most profuse were excited, and which were attended with all their accompanying evils; but still, on the other hand, the patient who escaped these perils was generally freed at once from the disease. The regimen then was as strict as the medical treatment was severe. Lodging-houses were established in Dublin, solely for the reception of young gentlemen who required to go through a course of mercury; and these houses were always fully occupied—so seldom was it that a young man could, while living among his own family, undergo the severe discipline to which the surgeons of that day thought it necessary to subject him.

"But from the time that Mr. Hunter's work on the venereal disease came to be generally read and acted upon by the surgeons of this city, the discipline became not only less severe, but actually as lax as Mr. Hunter himself could wish. Young men, pleased at the removal of these restraints, too frequently overstepped even the moderate bounds which were prescribed for them; and surgeons, finding that secondary symptoms frequently appeared in cases so treated, were glad to adduce Mr. Hunter's theoretical opinions of 'disposition to diseased action,' and so forth, partly to justify themselves, and partly to satisfy their patients; so that at length, from this, and perhaps from other causes, which I shall not now consider, those cases of primary venereal disease, which, under the old practice, required six or seven weeks for their cure, were, under the new plan of treatment, found to require as many months, or even years. By the former, the disease was really and quickly cured; but, by the latter, it is only pursued from one resting-place to another, so that the patient's mind is often kept in a state of suspense and anxiety for very many months,—the symptoms disappearing for a few weeks, and then returning; and so this scene may occur over and over again, until, by some lucky chance in the treatment, or in the effects of the medicine, the system shall come to be finally relieved from the disease.

"While I freely admit that excessive over-doses of mercury have inflicted the most severe evils, yet I as confidently affirm that within the last twenty years, the same medicine, when employed in under-doses, or rather when it has not been pushed so as to induce its legitimate action, has been productive of infinitely more mischief; and I feel confident that this position could be supported both by professional as well as non-professional persons were the effects of the latter practice as obvious and striking as those of the former; but they cannot be so fully appreciated by the ignorant, and they have not been sufficiently attended to by the profession."—P. 37.

Of course the recollection of facts must be received with deference. But it must be owned that the recollection of facts, particularly when comparison is exercised, is apt unconsciously to be warped by speculative opinions. Under the influence of those opinions, we look at all objects through a mist, and, against our will and without our knowledge, they are distorted by the medium through which they are regarded.

We find it difficult to reconcile the reminiscences of Dr. Colles with general experience and common belief. It is now almost a canon of faith that, in consequence of the mitigation of the mercurial code, venereal cases have lost much of their severity, and that fewer victims are immolated at the shrine of syphilis. But Dr. Colles reverses the idea, and pronounces boldly that the contrary is the fact.

It is evident that the point is not to be decided by argument. It is essentially statistic. The elements of calculation not being before us, we shall not attempt to dogmatize on the results. But perhaps one or two observations may help the reader in arriving at an accurate estimate.

Dr. Colles contends, that if too much mercury was given formerly, too little is given now. He necessarily speaks from personal observation. It may be, and it probably is the case, that Dr. Colles has seen worse practice than ordinary in this complaint. We are induced to think so partly on account of the nature of the assertion itself, so contrary to all that we have observed, so contrary indeed to general observation—and partly because Dr. Colles has practised in Dublin, where Mr. Carmichael's views have been promulgated, and where they must exert considerable influence.

We readily grant that the mass of medical men have no fixed principles of treatment in regard to syphilis. They give mercury for a disease with which they are so imperfectly acquainted, that whether *that* goes right or wrong, they are equally at a loss for any criterion by which to regulate *its* use. The consequence is, that we daily see instances of mercury given for sores which it is aggravating, and discontinued when its cessation will almost certainly entail secondary symptoms on the patient. If *we* see this in London, Dr. Colles is more likely to see it in Ireland, on account of what we have already stated—the influence of Mr. Carmichael's doctrines.

It appears to us, then, that a comparison between the past and present practice will differ with every individual who institutes it. As circumstances are, or have been, he will find the one plan or the other more successful—a well-informed mercurialist of former days having been, we dare say, both a better and a luckier surgeon than an ill-informed practititioner of the present. In the following sentiment we coincide entirely with our author:—

> "No doubt, observation, experience, and sound judgment are very requisite to enable the practitioner to decide whether those changes which appear at the critical moment when mercury is about to excite ptyalism be really unfavourable and alarming, or whether they may be merely the natural effects of the mercurial action; this, however, is not the only instance which the practice of surgery presents, in which accurate observation, discrimination, and judgment are required to practise the profession with safety and success; these are qualifications which can only be attained by long and attentive experience; no precise rules, therefore, can be laid down to guide the surgeon at this critical juncture, neither can any words impart to him that practical knowledge, without which he cannot conduct the further treatment of the case with satisfaction to himself, or with true advantage to his patient."—P. 39.

This is perfectly true. It is impossible to make what is called a practical man by books; nay, it is impossible to communicate any but the grosser part, the mere results, of practical knowledge. This consists in a quick observation and a nice discrimination of particulars—in an accurate and rapid calculation of probabilities—in a just application of those remedies to particular states, the applicability of which to those states has only been learnt by experience. We might as well attempt to describe all the tints in an Autumnal evening sky, all the hues of an Autumnal foliage, as to convey by words genuine practical information. In those who have it, it appears almost intuition; in those who have it not, the deficiency is too readily perceptible, and that even by common eyes. All that can be done by one who professes to instruct others, is to put them on the best method of study—to correct errors of principle—and to convey, as distinctly as possible, the great general results of practical experience.

This brings us to the termination of one, and the commencement of another chapter, in our author's book. The one on which we enter is appropriated to the examination of the methods of administering mercury—a subject of no trivial consequence to the practical surgeon or physician.

ON THE METHODS OF ADMINISTERING MERCURY.

Dr. Colles supposes that his patient is a young man, in good general health, affected with primary venereal symptoms. In such a patient, he is anxious to effect that ptyalism which our readers have learnt that he deems essential. He first speaks of the employment of *mercurial friction.*

This is more resorted to in hospital than in private practice, for obvious reasons. Patients object to the *bore* of it. There can be no doubt that it is a very valuable, perhaps the most valuable, mode of introducing mercury into the system in cases of venereal disease. It may be either a very active or a very mild method—adapted for severe, or for slight cases—and open to scarcely any objection except that which is founded on the trouble it occasions. Slight as that objection may appear in the eye of reason, it has nearly banished mercurial inunction from private practice in London. For ourselves, we must say, that although we should wish to employ it often, we very seldom have recourse to it. As it is a powerful and a very manageable remedy, all surgeons should know *how* to manage it. Dr. Colles's being essentially a practical book we shall lay his plan before our readers.

"The patient should be apprised of the necessity of rubbing in each dose of the ointment carefully, but not violently, and this he should do in the morning rather than at night, and for these reasons; first, the skin is soft in the morning and will bear friction better; and secondly, the sleep will not be postponed or disturbed, as usually happens when the nightly friction is employed, the patient being fatigued thereby, and thrown into a state of febrile excitement which is inimical to sound repose.

"As to the mode of rubbing in the ointment, the patient should be directed to divide the whole quantity to be used into four parts, and then rub in each portion perfectly and successively, until all are consumed: it is better to apply it to one limb only on each day, as thus that pustular eruption, which is a common consequence of mercurial friction, is less likely to be excited. I prefer making the patient apply the ointment himself, whenever his strength will admit of the exertion, because the friction of his own hand is less uncomfortable, and less likely to produce irritation and eruption, than that of any other person, even though protected by a bladder ever so well prepared.

"I do not advise the thighs to be shaved, as many surgeons do, because in a few days, when the hairs grow, and become stiff, more irritation is produced, and thus the tendency to pustular eruption is increased.

"During the course of mercurial friction, the patient should wear the same drawers both by day and night; he will thus have some portion of the ointment constantly applied to the surface; some of which will probably be absorbed during the intervals between each friction. When the same part of the body has been rubbed two or three times, it is advisable to wash off the remains of the ointment with warm water and soap, and this ablution should be made the night before the next friction.

"When we deem it necessary to employ mercurial friction with a patient who is in a very weak state, or more especially with one who is in a constantly feverish condition, we must direct the friction to be performed by some other person, to whom we should give the following instructions:—The servant should be furnished with a pig's bladder, which, after having been well steeped in

> warm water should be turned inside out, then well impregnated and softened with sweet oil or fresh lard. 'After this preparation, it is to be tied round the wrist of the assistant, and the ointment rubbed by him according to the directions already given."—P. 42.

The dose for each friction is, in Dr. Colles's practice, ʒss. If he is anxious to induce ptyalism rather early, he orders, at the same time, five grains of blue-pill to be taken every night at bed-time.

It must be admitted that this is very moderate treatment. We do not consider ourselves as violent mercurialists—the whole character of our practice, and, we think, the tenor of our observations, are the reverse of that. Yet, when treating primary syphilis in a healthy person by inunction we do not hesitate to order ʒj. to be rubbed in daily. Of course the continuance of the quantity hinges on the effect produced upon the patient.

Upon this point, we may quote a passage Mr. Hunter's work.

> "If it, (mercury), is given in very small quantities, and increased gradually so as to steal insensibly on the constitution, its visible effects are less, and it is hardly conceivable how much may at last be thrown in without having any visible effect at all."*

If mercury is exhibited internally, Dr. Colles, to whom we return, prescribes five grains of blue-pill twice daily—a very judicious dose. If calomel is, for any reason, preferable, he gives two grains at bed-time. This we think rather under the mark. If purging is to be avoided, the mercury should be combined with a small quantity of some opiate.

With respect to the forms of mercury here mentioned we would venture to make these remarks. The blue-pill is the milder form, and suits most constitutions. If it does not gripe nor purge, there is no reason why an opiate should be added to it. If it does gripe or purge, opium, in a quantity varying from one-twelfth of a grain to one grain or more should be combined with each five grain blue-pill. If the latter, however, guarded purges, the mercurial inunction should be used. An occasional aromatic rhubarb draught frequently prevents the blue-pill from griping or purging.

Calomel seems best adapted for strong habits and inflammatory cases. In the latter it should be combined with purgatives, or with opium according to circumstances. As a general rule, calomel should be avoided in the treatment of primary syphilis. Yet a dose or two of calomel and James's powder, followed by saline aperients, is a very good introduction to a mercurial course, whether of inunction or blue-pill. Such are the results of our experience.

About the fourth day, remarks Dr. Colles, we usually find, on *interrogating* the patient, that a metallic taste in the mouth, and other symptoms indicate the coming ptyalism. About the sixth or seventh day, this is usually established. Dr. Colles insists on the surgeon paying the most strict attention to the patient from the third to the seventh day. It is at this period, he observes, that the attentive and judicious surgeon can be of essential service by giving a right direction to the medicine, as well as by counteracting any injurious effect it may produce. Thus during this critical period, the patient is liable to attacks of griping, frequent desire to go to stool, and tenesmus; these efforts are attended with only slight evacuations, which chiefly consist of mucus tinged with blood; sickness of stomach and vomiting also often supervene, the skin is hot and the pulse quick; all which phenomena are explained by the fact that the specific influence of the mercury has taken effect upon the alimentary canal instead of the salivary system. This dysenteric affection so generally appears at this period that the patient should be forewarned and prepared for it. He should be directed to discontinue the use of the mercury, as soon as he feels this uncomfortable effect, and he should be provided with draughts, containing each Tinct. Rhei, ʒj., Tinct. Opii, gutt. xx. in any appropriate vehicle; one to be taken after each dysenteric stool. An opiate enema may be used instead of the draught, whenever the stomach rejects the latter. A gentle diaphoresis also should be encouraged by the tepid bath, or by bathing the feet in warm water. In the course of a day or two this febrile excitement will, under this plan of treatment, have somewhat subsided, the bowels will remain free from disturbance, and then we shall generally find that the mouth has become a little more affected; and should we wish to have it still more so, we may resume the use of the mercury, and continue it in such doses as the circumstance of the case may require. Dr. Colles goes on to remark, that, sometimes the mercury displays its effects in a somewhat different manner. The patient has fœtor and soreness of the gums, which ulcerate more than they should do, but he has no augmented flow of saliva. In such cases there is usually too much fever. If the mercury is continued, there is more severe ulceration, and perhaps the fever becomes alarming. This is what the lower order of the Irish call "a dry course." It does not cure the disease. It may, however, says our author, be converted into the full and legitimate ptyalism by reducing the doses and lengthening the intervals between them, and at the same time using such means as are calculated to reduce the rather high degree of fever which attends this peculiar condition of the mouth.

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* "To give an idea of this, ten grains of the ointment used every day, during ten days, affected a gentleman's mouth. The ointment was of equal parts of mercury and hog's lard. But, by means of omitting the ointment occasionally, and returning to the use of it, he at last rubbed in eighty grains every night for a month, without having his mouth, or any of the secretions, visibly affected."

In a few patients, the mercury affects the throat and not the gums. Such persons complain, about the fifth or sixth day, of a sore throat.

> "On inspecting the fauces, we discover a degree of erysipelatous blush on the arches of the palate, and some inflammatory thickening of the velum palati: on the tonsil, and generally at its upper extremity, we see a superficial ash-coloured slough; one side only may be thus affected, or both may be engaged in it. I need hardly say, that in such a case a further persistence in the full doses of mercury would not only prove ineffectual for the relief of the venereal symptoms, but would also be attended with considerable danger to life, by inducing a sloughing condition of the fauces."—P. 45.

Mercury, in such a case, must be withheld or much diminished in dose. The inflammatory condition of the throat must be set at rest, and the mercury then resumed. It may or it may not be borne well. The patient requires to be carefully watched.

Such are the sentiments of Dr. Colles on this important subject. So far as our own observation has extended we should say, that, in the main, it coincides with that of Dr. Colles. The practical rules at which our experience has enabled us to arrive, are these:—

1. To prepare a patient for a mercurial course, by low living, smart purging, preventing exposure to wet and cold, and mild local applications.

2. To enjoin during the course, moderate and regular, but not very low living—little exercise, and that gentle—the sedulous avoidance of wet, cold, and night air.

3. To make a point of watching the patient closely, and insist on his presenting himself every three or four days. If pyrexia occurs, no matter what its cause, to prescribe such remedies as are calculated to remove it, and to diminish or suspend the mercury until the pyrexia has subsided. We are sure that this is highly important, for either fever or local inflammation is a primâ facie reason for discontinuing the employment of mercury as a specific. It may in some cases be advantageously combined with diaphoretics, or with purgatives, but in others it must be abandoned, during the continuance of the inflammatory state.

4. To observe whether the patient loses flesh and becomes lowered, and if he does, to give sarsaparilla, or some mild tonic, with the mercury, and to allow a more generous regimen. This is a point of great importance. Some persons if once allowed to be much pulled down by the mercurial course, are scarcely able to shake off its consequences. They continue pale and thin, and out of health for a long period, and not unfrequently phthisis, or some malady indicative of constitutional debility, silently steals on, and carries them off.

5. On the whole, we would sum up what we have learnt in a few words:—to

insure a *full* mercurial course—to discontinue or modify mercurial remedies if inflammation or fever is set up—to maintain the general health. The details of such treatment will vary with the nature of the case, will be regulated by the judgment of the surgeon, and will materially influence the fate of the patient.

We cannot say that we attach so much importance as Dr. Colles seems to do, to the precise time at which ptyalism is induced. Nay, we are not so impressed as he is with the necessity for ptyalism at all. It is true that his notions of ptyalism are moderate, and it is true also that the quantity of mercury he gives is rather under than over what we prescribe. Substantially, then, we agree, for neither he nor we think the patient secure with a less efficient course than we employ. But, still, we repeat that we suspect there is a little hypothesis in our author's miner opinions. Take the following passage as an instance.

> "I have been thus particular in stating at what period the surgeon should wish ptyalism to commence, when using mercury for the cure of primary symptoms, because I am firmly convinced, that he cannot count upon a cure, if the salivation occur at a period much different from that above-mentioned; for should it be suddenly excited, and even though not very profuse, it will yet leave the disease uncured: perhaps the primary symptoms may be removed by it,—oftentimes they are not; but at all events the secondary symptoms will not fail to make their appearance, sometimes in full vigour, though often under a more subdued form. This I have seen repeatedly exemplified in cases of iritis, treated by calomel alone, or by calomel combined with frictions. I have also repeatedly seen mercurial fumigations which were used to stop a destructive ulceration of the throat, produce a speedy and profuse salivation, by which the ulceration has generally been stopped, but in almost every such instance the other venereal symptoms were only checked for the moment, to return with renewed vigour. And here I must remark, that after such sudden and profuse salivations, I have uniformly found the symptoms were very unmanageable, and by no means yielding in the usual way to a subsequent use of mercury.
>
> "On the other hand, if the salivation be very late in appearing, not only will the patient have to lament the loss of so much valuable time, but the surgeon will too frequently find that the system of his patient has been so irritated by this protracted, though moderate use of mercury, that the ptyalism excited at this late period, is not borne with the same ease by the constitution, nor is it productive of the same improvement in the symptoms that would have resulted from it, had it come on at an early period of the treatment."—P. 47.

We must say that we have again and again seen patients undergo a mercurial course, and exhibit no ptyalism at all worth speaking of, without any secondary symptoms ensuing. We have seen this so often, that we care little about the occurrence of ptyalism, provided a certain quantity of mercury is taken for a certain time, and that certain other effects are discernible.* If this be true, and our senses seem to tell us that it is, we cannot go all the way with Dr. Colles.

But much that he tells us is strictly correct, and as important as correct. Profuse salivations, rapidly excited, have under our observation been followed by such consequences as Dr. Colles mentions. Many of the miserable cases of cachexia which we witness have had their origin in salivations of this description. But to proceed.

When the desirable action of mercury is once obtained, it is easily kept up in the majority of instances. We quite agree with Dr. Colles, that it is better to prescribe too long than too short a course. If *the general health is maintained*, and it may be so, we never saw any mischief arise from the *very long-continued* use of mercury. But we have seen (and who has not?) many and many a case of secondary symptoms after a very short course.

If the mercurial action sinks too low, Dr. Colles has found it most advantageous to give pretty smart doses of calomel, viz., three grains, with one of capsicum, two or three times a day, at the same time that the former doses of the ointment are resumed.

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* The removal of the induration of the cicatrix, for example.

Dr. Colles next examines the untoward circumstances which occasionally present themselves during a mercurial course. It is always well to ascertain from a patient if he has undergone a mercurial course before, and, if he has, whether it was attended with peculiar effects.

A. Some patients are salivated by very small quantities, even by single doses of mercury. Such an event is to be deprecated. If it occurs, or if it threatens, the patient should be much in the open air, live generously, and take a diminished dose of the mercurial, at more distant intervals. The remedy must be insinuated into the system. If judiciously managed, such persons will frequently bear sufficient quantities of mercury at last.

B. In some persons, the ordinary quantity of mercury produces too trivial an effect. The quantity of the medicine must be increased. This requires great judgment on the patient's part, and no precise rules can be laid down. The following are Dr. Colles' views upon the subject—one of no slight moment.

When, he says, the dose is to be increased, it certainly ought not to be less than one-half, and sometimes it may be doubled at once; the former proportion will probably be the better. If the patient has been employing mercury, both by friction and internally, the dose of both should be increased, but if he has been using friction alone, then this should be continued at an increase of one-half, and he should take in addition five grains of the blue-pill every night. If in such cases we did not *early* increase the doses, the system would become familiarised to the mercury, and at a late period we should employ very large doses, and thus run the risk of exciting a profuse and dangerous salivation.

The plan pursued in such a case, one in which the patient's future safety is at stake, will vary with the speculative views of the surgeon. If, with Dr. Colles, he thinks salivation indispensable, he will augment the dose of mercury, until that is obtained, or so far as it is prudent to proceed with the object of obtaining it. If, with ourselves, he looks for salivation with less anxious anticipation, he will be content with the manifestation of other effects of the remedy, and with the conviction that his patient is taking that quantity which he knows by experience usually cures.

We would remark that, whatever be the views of the surgeon, he has always the means of increasing the action of mercury, by augmenting the temperature in which the patient is kept, and by lowering his constitutional powers. A certain dose of mercury may exert no perceptible influence on a man who is eating meat daily and drinking porter or wine. But confine the same man to slops, make him use the warm-bath, and probably a smaller dose of mercury will salivate him.

"We sometimes find in other constitutions, that two or three doses of mercury induce a feverish state of the system, without the peculiar fætor of the breath, or any of those other symptoms that indicate the approach of ptyalism: the skin will be hot, the pulse quick, with great general restlessness; under these circumstances, we infer that the mercury is disagreeing with the system, and should we now either continue its use, or increase the dose, we shall only add to the mischief by increasing fever; and if we still persevere, we may endanger the life of the patient; in general, however, he is soon reduced to such extreme weakness, and is so sensible of becoming daily worse, that he will himself oppose any further use of the medicine. Whenever this febrile state of the system, unaccompanied by any sign of its acting on the salivary organs, is thus early induced, we should at once desist from the further use of mercury, and endeavour to allay the fever by exposure to cold air, and by the adoption of such other means as may be best suited to the circumstances of each case. Having accomplished this, we must allow some time for the recovery of strength, before we venture to resume the mercury; and when we do so, we should begin with smaller doses, and these at longer intervals, for experience has shown us that the former quantities were such as overpowered the system. We must also endeavour to obviate any febrile action by occasional purging, by tepid bathing, and by the frequent use of mild diaphoretics; we are now to proceed cautiously, increasing the strength and frequency of the mercurial doses, until we gain the desired object, namely, a genuine and wholesome salivation. Here I would observe that this difficulty is not an uncommon consequence of plunging a healthy, vigorous patient into a course of mercury without any previous preparation."—P. 53.

All this is so practical, so judicious, that we have not a word to add to it.

D. Not unfrequently individuals resist obstinately the effects of mercury without having any fever induced. The sore pursues its course apparently uninfluenced. Under these circumstances, the mercury may be discontinued, or, as is usually the case, the dose of it may be increased. Dr. Colles has known two drachms, and even half an ounce of ointment, ordered to be rubbed in each night and morning, and at the same time large doses of Pil. Hydrarg. Calomel, or Hydr. Calcinat., given internally for some days; the result of this practice has been, that in some cases it has produced that general weakness and that tendency to faintness which mark the approach of erethismus. Then, of course, the remedy is abandoned.

In some instances, these excessive doses induce a violent ptyalism. We need not picture *that*. Some of our readers may have seen, all may conceive it. Such ptyalism may succeed in curing the disease for which it was excited, and which it almost exceeds in evil, or it may leave the unhappy patient with his original malady still afflicting him—a miserable position.

E. Dr. Colles considers the method of avoiding the various ills that have been mentioned.

If we ascertain that, on former occasions, the patient has been nearly insensible to the action of mercury, we should begin, says our author, with small doses, at longer intervals than usual; or, if we have commenced with the ordinary doses, we should not persevere with them, but should purge the patient repeatedly, enjoin low diet, and prescribe the frequent use of the warm bath.

"It has sometimes happened that, during the employment of these last mentioned means, a safe and mild ptyalism has supervened a few days after the mercury has been laid aside. This apparently anomalous fact is no weak proof that the cause of our failing to produce the desired effect in the first instance, was owing to the mercury having been administered in an injudicious, and as it were in too forcible a manner. But if with this treatment, no signs of ptyalism should appear, we must still persevere in the same constitutional means, until we conceive that the system is totally free from all mercurial impregnation; to induce this state may occupy twelve or fifteen days. We then commence a new course of mercury, and, taught by our former experience, that full doses of the medicine failed to produce the desired effects, we now direct it in very small doses, but at the same time we persevere in the same constitutional remedies as before; after a few days passed in this way we are sometimes pleased to find the signs of an approaching salivation gradually advancing in the very manner we are so desirous to effect. It appears to me, that this very precept which has been just inculcated, is the great secret which will serve to guide us in the management of those cases which have hitherto often excited great uneasiness in the mind of the surgeon; and it is a remarkable fact that this obstinate state of the system to admit of the influence of mercury, is not unfrequently met with in those very patients, who on former occasions had been salivated rather too quickly with the ordinary doses of mercury, and that too by the very same surgeon who is now so baffled in his attempts to produce the same effect. If surgeons of much practical experience will endeavour to recal to their recollection all the circumstances of such cases, I believe they will find, that on the latter occasions, in which they had to treat such cases, they were very anxious that the effects of the mercury should be quickly established; now, in my opinion, this very anxiety, by inducing the surgeon to urge the mercury too freely, has been one source of its failure, and of the disappointment of his surgeon."—P. 57.

There can be no doubt of the value of the preceding practical precepts; but we are not so sure of the soundness of the reasoning. Dr. Colles says, that the larger doses of mercury fail to affect the system, because they are given in too forcible a manner. It appears to us that the smaller doses do the business, not because they are smaller, but because they are conjoined with purgatives, low diet, hot baths, &c., means well calculated for promoting absorption, and for quickening the action of any medicine. Were the same large doses of mercury conjoined with the same constitutional treatment, the effect of the former would not, we fancy, be less, but greater. This, however, is a speculative question. We quite coincide with our author in his practical directions.

F. Dr. Colles has met with eight or ten individuals on whom mercury did not act as a sialagogue at all. Yet their venereal complaints were cured. This rather bears against his opinions respecting the necessity for ptyalism.

G. The general directions given to patients by Dr. Colles are to avoid exposure to wet or damp, to cold, or to night air. After a mercurial course, persons are subject to rheumatic pains; they generally too grow corpulent.

Dr. Colles takes no notice of a tendency to jaundice after a mercurial course. Yet we have seen several examples of it. The reason would appear to be, that the liver having long been stimulated by the mercury, and that stimulus being discontinued, is liable to perform its functions irregularly. We always recommend patients to regulate their bowels very carefully after the termination of the course.

H. Dr. Colles makes some lengthened observations on the mercurial eczema. His descriptions are accurate, his precepts judicious; but all that requires notice is the advice he offers on the treatment of those persons, (fortunately few,) who evince a strong disposition to suffer from the eruption on taking small doses of the medicine. The plan, he says, to pursue is this: in addition to the purging and warm bathing, which have been alluded to before as a judicious preparatory course, we should enjoin the patient to wear lighter clothing than usual, to exercise in the open air, during the greater part of the day, to keep the windows of his sitting-room pretty constantly open, to keep on light covering at night, to live abstemiously, and on food of the least stimulating quality. The mercury should be administered at first in extremely small doses, and at long intervals; by degrees the former may be increased, and the latter shortened, in proportion as we find the medicine agree with the system.

I. "We should carefully distinguish between erythema mercuriale and another, but more partial, eruption arising from the use of mercury. They both come on under similar circumstances; both seem to be excited by the first impression of mercury on the general system. Our attention is attracted to this latter eruption by our patient informing us that he fears he has got the itch, that he could scarcely get a wink of sleep for one or more nights preceding. He then exhibits on his hands and wrists an eruption beginning with small but very distinct red papulæ, some of which, in a more advanced stage, have vesicles on their apices: they chiefly occupy the anterior surface of each wrist, and of the fore-arm half way up to the elbow; the backs of the hands and fingers are also thickly beset with them. On first view, this eruption closely resembles a form of itch, in which the vesicles are small; but on more careful examination you discover that the clefts between the fingers are altogether free from the former, while they are known to be the principal seat of the latter. This eruption is accompanied by a slight degree of fever, and generally by marks of commencing ptyalism.

"I cannot say what changes or effects on this eruption would be produced by persevering in the use of mercury, because all the patients in whom I witnessed this symptom were also affected with a smart degree of fever, and complained so bitterly of the itching and of the restlessness caused by it, that I felt afraid to go on with the mercury until the irritation of this eruption had subsided. A few days use of the antiphlogistic regimen, and abstinence from mercury at the same time, were sufficient for the desquamation of the pustules, and the removal of this rare effect of the mineral."—P. 67.

K. "Another effect of mercury, allied perhaps to the foregoing, which the surgeon should watch for, is an excoriation of the skin on the corresponding surfaces of the scrotum and thighs. If this be discovered in its commencement, it will be seen as an excoriation in the very angle between the thigh and scrotum; from this it spreads over the entire extent of the opposed integument of these parts, and a profuse discharge of a very fœtid nature takes place."—P. 68.

Dr. Colles goes on to observe, that, in addition to the parts already mentioned, this disease will also affect the skin in the vicinity of the anus, where the integuments of the nates lie in contact with each other. Occasionally, too, we meet with instances where this disease affects only the skin in the vicinity of the anus, while the scrotum and adjacent skin of the thigh remain perfectly free.

The duration of this affection, says our author, varies from eight to fifteen or twenty days. For the relief of all these sufferings we find opium unavailing; it fails to procure any continued sleep. The antiphlogistic regimen scarcely moderates the fever. The most immediate and most effectual relief is procured by local means; the most efficient of which is dusting the excoriated parts with equal parts of lapis calaminaris and starch, very finely levigated: this is to be laid on pretty thickly, and then a fold of old linen interposed between the two adjacent skins. Another application, which often procures immediate ease, is the black wash of aq. calcis and calomel; the affected parts are to be kept asunder by lint constantly moistened with this lotion.

We must confess that we have never seen this affection as a consequence of mercury, though we have seen it several times as a venereal symptom. Dr. Colles offers no sort of evidence of its mercurial origin, indeed the only case he relates rather tends to disprove such an opinion, and an observation which he offers tends also the same way. The case we need not quote—the observation we may:—a repetition of the same forms and doses of mercury which are supposed to have given rise to the excoriation, may, when the excoriation is once healed, be resorted to again without reviving it." Now we do not find this to be the case to any thing like the same extent with other bad effects of mercury, and, so far as it goes, it rather militates against the notion that mercurial influence is at the bottom of the symptom. Be this as it may, we will present Dr. Colles's concluding exhortations with respect to the plan to be adopted when this or other complications have occurred:—

"Let us then bear in mind these facts; that each and all of these untoward effects of mercury are owing to the first impression of this medicine on the system; that on the subsidence of this state, the mercury may be used as freely and as long as can be required for the treatment of any venereal symptom, (or indeed for the cure of any disease curable by mercury,) without the danger of reproducing the same condition. Let us then, during the early period of a mercurial course, say from the second to the twelfth day, anxiously watch and guard against these untoward occurrences; but as soon as we have brought the system once fairly under the influence of this medicine, let us dismiss all fears and anxiety on this head, and now direct our whole attention to the changes in the venereal symptoms, to the degree of salivation, and to the strength and general health of our patients. The salivation once fairly established, we may consider ourselves as having escaped the chief dangers of a mercurial course, and as now being on the high road to a certain cure. We now may be confident that the mercury will not act (as it too often does) as a poison, instead of its proving one of the most active and beneficial remedies in the materia medica."—P. 71.

We are as decided advocates for the use of mercury in syphilis as Dr. Colles is—as impressed as he, with the folly of prescribing an inadequate course. But we cannot go the length of reckoning salivation as the great safeguard against all accidents—no more than we could subscribe to the opinion that its presence is necessary for a cure. In reference to the latter point, we repeat that we continually see patients perfectly cured who cannot be fairly said to have exhibited any thing like ptyalism; in reference to the other point, we can positively affirm that some of the very worst cases we have seen of the bad effects of mercury have been those in which salivation *was* excited and maintained. Perhaps the ambiguity of language, and a certain difficulty in composition, may obscure or pervert the sentiments of Dr. Colles, and may make him seem to say what he does not strictly mean. This is not improbable. But his less experienced readers will read the text as it is written, and attach to it no other sense than what appears upon the surface. We think it necessary to record our dissent from the apparent doctrine inculcated; because we believe that, if literally understood and unreservedly acted on, it would lead to unfortunate results.

There cannot, perhaps, be a more pregnant instance of what we must consider fanciful hypothesis, than the attempt of Dr. Colles to show that the mercurial erethismus occurs only in cases where ptyalism has not been obtained. We have lately witnessed a fatal instance of this very affection, now fortunately rare. In that instance, a few doses of calomel excited a furious salivation, the mercurial erethismus followed, the pulse grew rapid and irregular, the limbs were affected with general tremors, the countenance was of a deadly white, the depression was excessive, and, in this condition, the patient died. Mr. John Pearson, who saw too many cases of the erethismus, for in his time mercury was given in large quantities, and the salivations were excessive, states that the subjects were men who had nearly, and sometimes entirely, completed their mercurial course. Is it likely that such men had not been affected, more or less, with ptyalism? On the whole, we conceive that our author's ideas on the sovereign virtues of ptyalism approach rather closely to what is called a crotchet.

This concludes the portion of the work devoted to the examination of the best mode of administering mercury for the cure of syphilis. The subject is important—too ill-understood, and too little considered by the bulk of medical men—beset with many difficulties at the best—obscured by prejudice, by ignorance, and by hypothesis—and in need of all the light that can be thrown on it by reasoning and by practical experience. An article on such a subject is not misplaced in the pages of a journal avowedly conducted on utilitarian principles. If inexperienced readers acquire any useful information, and if experienced ones are led to reflect more on what they see, and to communicate what they may learn, the purposes of utility will have been served.

CASE OF CÆSAREAN OPERATION.

BY J. WARD.

On the 18th of October, at half-past nine A. M., I was requested by Mr. F. D. Thompson to visit E. Hull, an unmarried female, aged 25, very much deformed in the spine and pelvis, with very short crooked thighs and legs. She had been in labour all the previous day, and attended during the night by Mr. F. D. Thompson. On examination per vaginam, duplicature of the funis was protruding through the os uteri to the extent of six inches. The occiput could be felt, but, from the great deformity, it was with some difficulty it could be reached by the finger; the promontory of the sacrum projected so far forward that there was only an inch between it and the pelvis; and the spine curved forward over the small aperture, so as to shut in the pelvis above.

At my suggestion a consultation was requested; and accordingly Mr. Gregory, Mr. Dixon, and Mr. Saville, saw the patient, when it was decided on performing the Cæsarean section, as the only possible way of delivering her. There was no pulsation to be felt in the funis; and likewise, from other circumstances, it was concluded the child was dead, which was proved to be the case.

At half-past 12 at noon the patient was laid upon a table; an incision was made in the direction and over the linea alba, commencing at the umbilicus, and continued to the extent of six inches; the parietes were carefully dissected until an opening was made through the peritoneum; two fingers were introduced as a guide, and the remainder of the opening down to the pubes accomplished. A second opening being made through the uterus, the placenta was brought to view, through which the hand was passed and the child brought away, followed by the membranes, the uterus contracting immediately on being relieved of its contents.

The parts were sponged from the little hemorrhage which took place during the operation, and the extensive incision closed by the twisted suture. An anodyne was administered, and the patient, being placed in bed, remained in a tranquil state through the course of the afternoon and evening. Was visited at 6 P.M., when the pulse was 100. A saline mixture was then prescribed, and she was left in the care of an assistant through this and the subsequent nights during her illness.

Oct. 19th, 10 A. M.—Has had a tranquil night, with three hours' sleep; passed some coagula by the vagina. Pulse 120; countenance tranquil; skin moist; tongue clean; very slight thirst; complains of pain at the scrobiculus cordis; slight tenderness over the abdomen. Has passed no urine since the operation; the catheter was introduced, and ℥xij. of water drawn off; no evacuation from the bowels; lochial discharge continues. She remained during this day very tranquil till the evening.

6 P. M.—Pulse 130; tongue dry; countenance calm; bowels slightly evacuated by enema; passed urine freely; more coagula per vaginam; abdomen tympanitic, with tenderness. The bandages were removed, as causing uneasiness by their pressure.

Habeat Hydrargyri Chloridi, gr. x.

9 P. M.—Much in the same state; twelve leeches were applied to each side of the abdomen; enema repeated. Had two grains of opium, with three grains of calomel, which was repeated at one o'clock; a large poultice applied over the whole surface of the abdomen, and continued through the night.

20th, 10 A. M.—Has had five hours' sleep during the night; bowels relieved, and passed urine freely. Pulse 100; countenance tranquil; abdomen less tympanitic; tenderness much relieved; has thirst, with brown tongue. Bowels continue open; skin moist; lochial discharge continues, and expresses herself considerably relieved.

6 P. M.—Pulse 100; perfectly tranquil; bowels acted freely; passed urine; lochial discharge continues; slight perspiration; gums a little affected; tympanitic feeling less; bears pressure better.

Pills of calomel and opium, and saline medicines continued.

21st, 10 A. M.—Has passed a comfortable night, with three hours' tranquil sleep, and expresses herself much refreshed. Bladder continues to perform its functions naturally; pulse 98; less tenderness of the abdomen; feels easy; no evacuation from the bowels.

To take a saline purgative.

6 P. M.—Pulse 126; skin moist; slight hiccup; no operation from the purgative.

Habeat Ol. Ricini, ℥j., and to have an enema. The pills of calomel and opium after the bowels have acted.

22d, 10 A. M.—The bowels have acted freely through the night, and has had some sleep. Pulse 120; irritable and restless; skin moist; tongue dry.

Febrifuge mixture ordered.

6 P. M.—Pulse 130; skin moist; tenderness of the abdomen; frequent eructations of flatus; bowels freely opened; tongue moist and furred; lochial discharge continues.

Repeat pills and mixture.

23d, 10 A. M.—Has had a restless night; pulse 140; eructations and hiccup.

Ordered a mixture containing sesqui-carbonate of ammonia, with wine negus.

Mid-day.—Continues to get worse; stimulants freely administered, from which time she continued to sink, and died at half-past eleven at night.

Post-mortem examination on the 24th October.—The external wound was partly healed by the first intention; there were traces of considerable peritoneal inflammation. The uterus was of the usual size; the opening was closed, but there was no appearance of adhesion. From the presence of the friends, and the objections they made, we could not proceed further with the examination.

It must be remarked that, up to the morning of the 22d, it will appear by this report that, the patient was doing well; but on that day a drunken and uproarious quarrel took place between the brother of the deceased and the father of the child, in the adjoining room, from which time she appeared (from the agitation caused by the quarrel) to get into a state of great nervous irritability; and had it not been from the bad effects evidently produced by the above-mentioned circumstance, the patient in all probability would have done well.

I have omitted to mention that, after the operation, her diet was of a bland nature, consisting of sago and arrow-root with milk, and chicken-broth occasionally, all of which she partook of with a natural relish.—*Lond. Med. Gaz.*

ELECTRIC INDUCTION.

The first of the evening meetings of the Royal Institution took place on Friday last, when its distinguished professor, Dr. Faraday, delighted a large assembly by an experimental illustration of the phenomena *electric induction*, and concluded by a brief statement of his new theory, which, although by himself modestly termed "a notion," until confirmed by the researches of others, will probably soon change the whole aspect of electrical science. For the full substantiation of his views, Dr. Faraday referred to his paper lately read to the Royal Society, and now in the course of being printed in its Transactions; and he now brought forward only those experiments which were most susceptible of demonstration before a public assembly. It would be doing injustice to the professor, were we to attempt to give more than an abstract of the more prominent points of a lecture, in which experimental proof kept pace with the flowing words of the eloquent lecturer.

Electric *induction* is that property by which an electrified body can induce an opposite electric state in that part of other bodies to which it is approximated. Thus when a conductor charged with positive electricity is approached (but not within discharging distance) to one not electrified, the electricity of the latter, before latent, becomes developed; its negative portion being drawn towards the positive conductor, while its positive portion is repelled to the further end. A double electric state is thus *induced* in the uncharged conductor, without either receiving or giving any to the charged conductor, and remains so as long as the neighbouring conductor continues charged; but the moment that it is discharged or removed, the induction ceases, and the electricity returns to its balanced latent state. Now if we could divide the *induced* conductor into two, we should find one-half charged with positive, and the other with negative electricity; and the same result may actually be obtained by inducing electricity in two conductors in a line, with their ends in contact, and removing the further one whilst the inducing influence continues. All the common phenomena of electric excitement will be found to involve this principle of induction. Let two examples suffice. When we approach our knuckle to the charged conductor of an electrical machine, the electricity crowds towards it, being drawn there by the opposite electricity which accumulates from our body and contiguous objects into our knuckle, until we bring it within discharging distance, when the whole charge passes across the space at that point. In the Leyden phial or battery, the cumulative property of electric induction is exemplified in a higher degree. Here is an extensive conductor of tinfoil inside, communicating with the machine, separated only by the glass of the jar from an equally extensive conductor outside, in communication with the earth; the electricity excited by the machine passing into the inside of the jar, draws the opposite electricity from the earth to the outside, and the extent of the electrified surfaces and closeness of their approach give to the inductive attraction its greatest force; so that two enormous quantities of opposite electricities become heaped up close to each other, ready to discharge and equalise themselves whenever a conducting medium is presented to them. Dr. Faraday showed that where circumstances prevented induction, there was no development of electricity. Thus the interior of an electrified coal-scuttle showed no evidence of electricity, but its exterior being in inductive relation with surrounding bodies, was obviously electric.

Philosophers and mathematicians have generally sought to explain or calculate electric phenomena or effects under the hypothesis, that they are the result of attractive and repulsive forces, acting in straight lines, inversely as the square of the distance. The profound calculations of Œpinus and Poisson were founded on this notion. They considered that induction is the same law acting on distant particles, the intervening non-conductor being wholly passive in regard to the electric force. Professor Faraday sought to bring this view to an *experimentum crucis.* If the forces are exerted only in right lines, electricity should not be induced in curves or round a corner. By several ingenious experiments, however, he proved that opposite electric states may be induced round a corner, and without any limitation to the law of right lines. This and other facts have brought him to the conviction, that electric induction does not depend on attractions and repulsions exerted between separated particles, but on a particular polarised state which the particles of non-conductors are capable of assuming, and which acts contiguously from particle to particle. We look with great interest to the further development of these views.

The learned professor, at the conclusion of his lecture, congratulated the members on the flourishing state of the Institution, which, he added, now received them with a *clean face.* He announced that a lady had just placed a thousand pounds to the credit of the Institution, the interest of which is to be applied once in seven years to a prize for the best work *On* (as we understood) *the Evidence of Design in the Works of Creation.—Lond. Med. Gaz., Jan.* 1838.

THE RESULTS OF TAPPING THE HEAD

IN NINETEEN CASES OF HYDROCEPHALUS.

By J. T. Conquest, M. D.

Nearly *ten* years having elapsed since I was first induced to attempt the cure of chronic hydrocephalus by withdrawing the fluid from the ventricles, the time seems to have arrived when the profession has a claim on me for some account of the results of these operations; and, indeed, this has become necessary, in consequence of the numerous applications for information on the subject by practitioners, not only in Britain, but in many distant parts of the world. Still, it is a matter involving such important considerations, that until experience has thrown much more light upon it, I do not feel justified in advancing any thing beyond the mere statement of facts, such as the present position of my inquiries warrants, leaving to a future day a more methodical and full investigation of the origin, nature, and progress of this formidable disease, with its appropriate medical and surgical treatment.

The operation consists in passing a small and delicately constructed trocar into one of the lateral ventricles, and drawing off so much fluid as the powers of the constitution will admit of. The most eligible spot at which the trocar can be introduced, is in the course of the coronal suture, about midway between the crista galli process of the ethmoid bone and the anterior fontanel, so that the danger of wounding the corpus striatum is avoided on the one hand, and the longitudinal sinus on the other. The instrument usually penetrates about two inches, and in most cases the serum has been colourless, but occasionally tinged with blood. In one instance, and that was in the last child operated on at St. Bartholomew's only a few weeks since, a large and alarming quantity of florid blood escaped; most likely from a branch of the meningeal artery. Sometimes on withdrawing the trocar the water will not flow until a probe has been passed along the canula to remove portions of cerebrum which block it up. After taking away all the fluid that can be removed consistently with safety, the head, which should always be steadily compressed by an assistant during the operation, may be strapped with adhesive plaister, that it may retain its diminished size, and that the fearful consequences of suddenly removing long-continued pressure from the brain may be averted.

I have now tapped in *nineteen* cases, and of these *ten* were living when last heard of. Several of the children, before the operation, were reduced to the most deplorable condition, having frequent convulsions, with loss of sight, emaciation, &c.; but the diminution or disappearance of these symptoms has been very remarkable. In some cases the results have been triumphantly successful; in others, from the reluctance of the patients to have the operation repeated, only temporary relief has been afforded; but none of these children died either during or immediately after the operation, and those which, in the subsequent list, are reported as dead, survived weeks or months after the fluid was withdrawn.

All the operations were performed in the presence of many medical men, and most of them before large bodies of students at St. Bartholomew's Hospital, and their progress has been watched by gentlemen who have felt a deep interest in their termination; and although exclusive dependence has been placed on the withdrawal of the fluid without the auxiliary assistance of any pharmaceutical or other medical means, yet I consider much of the success to be attributable to the kind and able superintendence of medical friends.

Having long entertained a conviction that this deplorable disease ought not to be left without something being done for its relief and cure, and not discouraged by the want of success that had followed similar attempts, and considering "*anceps remedium melius quam nullum*," it was in the autumn of 1828 that—

The *first* operation was performed on Catherine Seager, aged 20 months, whose head had been gradually enlarging during the previous half year. Not more than two ounces of serum flowed; but on a probe being passed into the ventricle (by Mr. Harvey, of Islington), when the child reached home, a considerable quantity of fluid escaped *stillicidio*, so that during the night it was calculated that the saturated bandages and napkins could not contain less than two pints. Only one paroxysm of convulsions followed the operation, and some symptoms of meningeal irritation which supervened were speedily subdued by leeches and cold evaporating lotions. Two years and a half subsequently I had the high gratification, in company with some friends, to see this child, when the parents left England for America, and it was not only in perfect health of body, without the slightest evidence of its having been the subject of so formidable a disease, but in the full possession of its intellectual powers.

The *second* case was that of William Honey, aged 8 months. The enlargement of the head had been perceptible about six weeks, and on the 20th of November, 1829, I tapped him, at St. Bartholomew's Hospital, and withdrew twelve ounces of colourless serum from the right ventricle. On the 2d of December, twelve ounces more were withdrawn; and on the 16th an additional ten ounces and a half: making the total quantity thirty-four ounces and a half. This child was progressing most satisfactorily when it became the subject of hooping-cough, to which intractable disease it fell a victim some months after the last operation.

The *third* operation was performed on William Wilmer, a boy now (March 1838) under a course of education in the Orphan Working School, City Road; nearly *eight years* having elapsed since twenty-four ounces of water were taken away by twice tapping him. The history of this interesting case has been given by Dr. Caldwell, of the City Dispensary, whose patient he was. That the account may be authenticated and impartial, the following statement is an extract from that communication:—"William Wilmer, aged 4 months, came under my care in the month of July, 1830. His head was of an enormous size, and had been so from its birth: the forehead was large and prominent; his eyes heavy, and somewhat convulsed; frequent hiccup and vomiting, &c. Several gentlemen had seen the case, and they all gave it up as hopeless. In the beginning of August Dr. Conquest performed the operation upon this child, and immediately the fluid issued forth in a stream, at first clear, and afterwards a little tinged with blood. During the remainder of the day the child continued rather weakly, but was more lively than he had ever previously been, and for some time afterwards the intensity of all the former symptoms greatly diminished. When a month, however, had nearly elapsed, it was considered requisite to repeat the operation, and on the 3d of September Dr. Conquest again extracted a clear liquid, to the amount of twelve ounces more. The child sleeps well, eats heartily, is very lively, and in full possession of all its mental faculties.

"(Signed) H. S. Caldwell, M. D.

"September 6, 1832."

Amongst other things mentioned in the paper from which this extract is taken, is the curious fact, that the head, which was so enormously large at the time of the operation, remained stationary, although the size and strength of the body has gradually increased in proportion to the age of the boy; and now that nearly eight years have elapsed, the head, although disproportionately large, remains at about the same dimensions.

The *fourth* case, that of Elizabeth Forster, is referred to with more than ordinary interest, not only because it is the one from which the largest quantity of water was extracted (no less than fifty-five ounces), but more particularly because I had lost sight of the child for years, and thought it was dead, until, in September last, I received the following most gratifying communication, which I transcribe entire, as it will convey all necessary information of the case:—

"Dear Sir,—Being lately on a visit in Buckinghamshire, I was enabled, through the kindness of Mr. Cowley, of Winslow, to see the child, Elizabeth Forster, residing at Little Harwood, on whom you performed the operation for hydrocephalus about five years since. Her countenance and general appearance are healthy, her appetite good, and her rest at night undisturbed; she has been attending a school in the village, where her progress has been equal to that of the other children; she answered questions which I addressed to her on this and other subjects, with a shrewdness for which her governess says she is remarkable. The greatest circumference of the head is twenty-two inches; the ossification is complete, with the exception of the posterior fontanel, and two other openings of the same size, two inches apart, on either side of the medial line, in the course of the coronal suture. Her mother showed a lively sense of gratitude for the benefit she has experienced under the treatment to which you had subjected her. Yours, &c.

"FRANCIS COOK, M. D."

It would be useless at present to detail the particulars of the other fifteen cases, as all that is important to be known will be found in the summary given at the end of this communication, and from which it appears that, of the nineteen children operated upon, ten were living when last heard of, and nine are dead; but it is only fair to state, that as most of these children were amongst the lower classes of society, who are continually changing their residences, several have been lost sight of, and may now very probably be dead, although when last seen, some time subsequently to their having been operated upon, they were living.

Of course these operations have been attended with different degrees of success. Unquestionably some are cases of perfect recovery; but in every instance there has been a very marked diminution of suffering, and prolongation of life, and in no one case has a fatal terminatian been accelerated.

Dr. B. G. Babington has analysed the fluid with great care, and states its specific gravity to be 1004. It does not coagulate by heat, acids, or alcohol, and consequently does not contain albumen. Tincture of galls produces no immediate precipitate, but after standing some hours a few brown flocculi subside, proving that it contains a very little gelatine. On evaporation, 1000 grains yield 10 grains of solid matter, chiefly chloride of soda, proved by precipitation with nitrate of silver. The liquid therefore contains, in 100 parts—

Water	99.
Gelatine,	.1
Chloride of soda,	.845
Orher salts and loss	.055
	100.000

In no instance has clearly marked congenital disease been permanently benefited, and those cases have done best in which effusion manifestly resulted from inflammatory action, and in which cerebral excitement followed the operation. The number of cases tapped, with the quantity withdrawn, will be seen in the tabular summary which concludes this brief notice of the subject.

No.	Name.	No. of times operated on.	Quantity withdrawn.	Living.	Dead.
1	Catherine Seager . .	1	℥ xxxij.	1	0
2	William Honey . . .	3	xxxivss.	0	1
3	William Wilmer . .	2	xxiv.	1	0
4	John Hall	5	xlviijss.	0	1
5	Alfred Parman . . .	4	xlv.	0	1
6	Mary Ragon	3	xxvj.	1	0
7	Charles Discomb . .	2	xx.	0	1
8	John Ward	1	viij.	0	1
9	John Clauditt . . .	2	xxij.	0	1
10	Charles Clarke . . .	2	xvij.	0	1
11	Elizabeth Forster . .	5	lv.	1	0
12	Jemima Evans . . .	1	vijss.	0	1
13	Jane Brocken . . .	1	xiij.	1	0
14	Eleanor Mahoney . .	1	ix.	1	0
15	Francis Chiddy . . .	4	xxxiij.	0	1
16	Thomas Norman . .	1	vj.	1	0
17	Anne Armenio . . .	3	xxxjss.	1	0
18	James Thomson . . .	2	xiv.	1	0
19	John Pratt	1	ix.	1	0
19		44	455	10	9

I feel no ordinary pleasure in thus simply recording the progress of my investigation of this momentous and interesting subject, and shall be most happy to receive from my professional brethren any suggestions that may assist me in attempting to diminish this one source of human suffering and death.—*Lond. Med. Gaz., March*, 1838.

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EXCISION OF THE NECK OF THE UTERUS.

To the Editor of the Select Medical Library and Eclectic Journal of Medicine.

Dear Sir:—It has always been my intention (since the occurrence) to publish the following case of unsuccessful operation on the Neck of the Uterus; but I have neglected the performance of this duty until the other day you inquired respecting the kind of instrument with which I operated.

On the 8th of April, 1834, I was called to see Mrs. H——, a widow, aged about 50 years, who had borne eleven children, and had general good health to about six months previous. She now complained of excessive discharges from the vagina—generally white, but sometimes mixed with blood—and found herself much weakened. In a few days afterwards an alarming hemorrhage from the uterus took place, which led to an examination per vaginam, when the cauliflower excrescence was found to exist in a very aggravated state. Never having read or heard of any remedy which was at all relied on for relief in such cases, I early thought of the operation recommended by Lisfranc of Paris, and, as reported by him, attended with great success. I proposed it to her, and she, after having the matter under consideration for three months, and in the meantime having had several dangerous attacks of hemorrhage, consented.

Mr. Rorer (surgeon's instrument maker) supplied me with a large curved bistoury with a guard, which could be easily removed after being applied to the part intended to be cut; also, a pair of forceps to draw down the uterus. The latter instrument was useless; but I found no difficulty in effecting this part of the operation with my hand.

The patient being placed on her back, as if for the application of forceps, I introduced my hand, and grasped the excrescence and the neck of the uterus, and, by alternate traction and relaxation, in about half an hour brought it down, so as to allow me to pass the knife beyond the part apparently diseased, near the body of the uterus, and with one cut easily removed the whole of the neck. She was not greatly distressed by the operation, and during the day, the 11th of July, and night, there was no alarming prostration, though the hemorrhage was great. The next day her strength began to fail rapidly, and with all my efforts to restrain (which was by pressure) the hemorrhage continued; and on the fourth day after the operation she died from loss of blood.

On reviewing the case, I concluded (and Dr. J. Rodman Paul, my assistant, concurred in the opinion) that it was not a proper case for such an operation. The very enlarged state of the bloodvessels, and their great number, made it too probable that the hemorrhage would be very dangerous. The fatal character of the disease is the only justification for undertaking the operation. But it is important to record the case for the instruction of others. I may also observe, that where there is a cancerous ulcer on the neck of the uterus, which it may be desirable to remove, I apprehend no great difficulty will be found in its accomplishment.

Yours, respectfully,

May 5th, 1838. HENRY NEILL, M.D.

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LATE IMPROVEMENTS IN MEDICINE AND SURGERY.

The diseases of the bones have, of late years, engaged the earnest attention of professional men; and a *concours*, proposed by the Academy of Sciences, on the subject of spinal deformities, could not fail to be an inducement to additional study. After waiting five years, the great prize was carried off by a brother journalist, M. J. Guérin, and the second one by M. Bouvier.

Orthopedy seems to have arrived at a point where it is no longer a mechanical and illusory art, but the whole of medicine applied to a branch which may be considered as new, since our predecessors knew nothing but its name.

Medical gymnastics, directed according to the data furnished by the last researches into pathological anatomy, now form one of the most essential parts of the treatment of deformities. Gymnastics, when employed as they are at the present day, constitute an important branch of therapeutics, and are really a science practically applied, but one with which the majority of practitioners have but a very slight acquaintance.

An equally brilliant improvement, which is exclusively of modern date, has been made in the treatment of club-foot, and angular anchylosis of the knee. Some years ago, it would hardly have been thought possible that a few weeks should suffice to cure completely, and almost without pain, deformities which were recently thought by great masters of our art to be incurable, particularly in adults; but facts are stubborn things, and we must submit to evidence. Several dozens of children operated upon by M. Duval, in our presence, were perfectly cured of their club-feet in a fortnight or twenty days; and many other patients, aged from twenty to fifty, received the same benefit under the hands of the same practitioner, in a space varying from one to two months after the tendo-Achillis had been cut. Our readers are already acquainted with the first results obtained by the operation of cutting the tendons of the popliteal region for the cure of angular anchylosis of the knee; and we shall soon be able to publish several other cases of the same kind, which have been operated on in the institution for club-feet, at Paris. An important circumstance to be noted in all these operations is, that if the tendon is not completely divided, they fail entirely in their object. In fact, if a very small strip of tendon has escaped division, the limb cannot be made perfectly straight. This has occurred at the Hôtel-Dieu, and even in private practice, in the case of one of the principal editors of a great political journal, and the deformity returned from this circumstance alone. This want of success proceeds merely from the method of operating employed; for the operation never fails when the tendon is cut according to Stromeyer's method, as improved by M. Duval. It is obvious, indeed, that by cutting in the contrary direction to the one which he follows, that is, if we cut from the skin inwards, the tendon is pushed back, and we are liable to leave some of the tendinous fibres untouched, or else to injure parts which ought not to be meddled with.*

The treatment of fractures of the limbs has undergone important modifications. M. Seutin, chief-surgeon to the Belgian army, has successfully altered and generalised the fixed apparatus; he employs a solution of starch as a plastic material for the straps, and uses pasteboard splints instead of wooden ones; at the same time he has adopted the principle of making the patients walk as soon as the bandage is dry.

The results obtained by M. Seutin with the starch apparatus, have received the approbation of the Society of Medicine, and the Academy of Sciences, at Paris, particularly in fractures of the leg. We shall return more in detail to this method of treatment when we give an account of the work which M. Seutin has just published. Let us mention, meanwhile, that several patients with fractures of the leg, who are now in the Charité, and are being treated in this manner, are suffering from considerable eschars.

The pathology of the urinary passages is understood better and better. Strictures of the urethra are no longer treated by any dilatation, except that which is merely momentary; for experience having shown that permanent bougies irritate the canal, delay the effects of dilatation, and predispose the patient to relapses, the practice has been adopted of dilating the urethra for a short time only every day. Bougies are employed of a gradually increasing size, and they are left in the urethra for a few minutes, or at most half an hour, each time. Patients treated in this way experience no bad symptoms, can attend to business, and get well more quickly and certainly than by the old method. The bees'-wax bougies found in our shops are now generally preferred to those of elastic gum. This method, though sanctioned by the experience obtained in private practice, is not yet employed in our public hospitals.

But whenever a stricture of the urethra seems insurmountable by ordinary means, practitioners do not now hesitate to make use of the bistoury. Experience seems to have shown that in such cases the small incision made at the very point where the stricture is, dissolves the diseased tissues, or rather discharges them by the suppuration which follows, thus ultimately allowing the dilatation of the canal of the urethra.

Lithotripsy continues to extend its domain, and lithotomy has really become an exception. The *percuteur à marteau* gives pitiless raps both to the *pince à trois branches* and to the adversaries of this beautiful operation. Meanwhile, M. Souberbielle is still considered the most successful of lithotomists.

The radical cure of hernia is actively pursued by several professional men. We have seen patients who had been cured by M. Lafond; and M. Bonnet, of Lyons, has made other cases known. Much remains to be done in this important department of surgery

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* The Gazette des Hopitaux of January 4th, contains a letter from Dr. Bouvier, in which he says that he prefers the method of operating which is censured in the text—namely, that of dividing the tendon from the skin inwards; and he asserts that he has never failed, either in the Hotel-Dieu or in his own institution, or in private practice.—TRANSLATOR.

Hydrocele has of late been the subject of therapeutic research, particularly in England. Mr. Lewis, of London, cures this disease in a very simple manner. He inserts several acupuncturing needles, or common sewing ones, into the tumour, and leaves them there a few moments, twisting them between his fingers, in order to make the punctures round; the water becomes extravasated, drop by drop, into the cellular tissue of the scrotum, and is afterwards reabsorbed; the sac gradually returns to the testis, and the cure takes place without adhesive inflammation. The cure is radical, and is effected in a few days, without pain, and without confining the patient to his bed, or to his room. Nevertheless, relapses have sometimes occurred, in which case the operation has been performed again.*

The same treatment has lately been applied with success to idiopathic dropsy of the abdominal cavity.

Microscopic pathology seems of late to have got into favour with experimental physicians in different countries. M. Delle Chiaje, of Naples, has discovered the *polystoma* in the blood of man: it is a small worm, shaped like a leech, which is developed in the circulating fluid of some patients. M. Delle Chiaje has observed a great number in the blood which various phthisical patients have vomited in his presence, as well as in the blood which he has drawn from the veins of persons labouring under other diseases. The *polystoma* is found also, without the existence of disease, in the blood of several non-vertebrated animals. M. Delle Chiaje makes use of his discovery to explain the development of the disease called *helminthiasis*, or verminous affection, and the formation of hydatids in general: as, according to him, the blood secretes the germs of these animals. Another equally curious fact has been brought to light by microscopic observation—we mean the animalization of the globules of milk, which M. Turpin seems to have confirmed.

Thus we see that the year which has passed away is more remarkable for improvements than for great discoveries. At its beginning, certain persons proclaimed their appearance upon the medical horizon with a sort of *fracas;* they called themselves reformers of the whole science, and loudly announced the fact in their journals. Others, perhaps, unterrified by their fall, will succeed them, ready to wander in the same path, while they forget the first part of the saying of Archimedes—*give me a spot on which to stand!* Yet after, as before them, science will continue its habitual progress, slow but still advancing.—*Lond. Med. Gaz., Feb.* 1838, from *the Gazette des Hôpitaux of Jan.* 2, 1838.

ANOMALOUS CASE OF HYSTERIA.—MESMERISM.

To the Editor of the Medical Gazette.

Sir, if you will have the kindness to give insertion to the following letter and case, you will much oblige Your obedient servant,

S. Sandys, Surgeon.

4 Francis Terrace, Kentish Town, Feb. 5, 1838.

To the Baron Du Potet de Sennevoy.

Sir, I feel it but due to you to acknowledge publicly the source from whence I derived such a knowledge of the science of mesmerism as has enabled me to pursue the course of inquiry, and to obtain the results, detailed in the following case.

Surprised at the phenomena exhibited by those patients whom you treated at the University College Hospital, where through the kindness of Dr. Elliotson, I was invited to attend, I could not hope that so shortly afterwards I should thus, in my own practice, see the beneficial results of mesmerism.

I have only to add, that my attention was not directed to the respiration (as was that of an eminent physician, who has already given us the results of his experiments), nor indeed had I any other object in view than that of simply imitating, as far as I could, the method of manipulation practised by yourself.

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* Mr. Lewis's claim to the invention of this method seems doubtful: our readers will find several controversial letters on the subject in the 19th vol. of the Med. Gaz.—Trans.

I am, sir, with much respect,
Yours &c. S. Sandys, Surgeon.

A. S., aged about 42, a female of quiet and sedentary habits, her occupation being that of a sempstress, has for several years been subject to dyspepsia, with a remarkable though variable state of the tongue; the whole or a part of the skin falling off about once in ten days, leaving the exposed surface raw and painfully sensitive; in 24 to 36 hours it appears as usual again. For this she has been under constant treatment, of which daily exercise in the open air formed a part. About the middle of November she was affected with a constant vomiting, partially relieved by creosote (the effervescing saline having failed), and completely removed by hydrocyanic acid. This was accompanied by pain and weakness in the back and loins. About a month afterwards she was affected with retention of urine, requiring the constant use of the catheter. Six or seven days after this she was observed one evening to rise from her bed (about nine P. M.) in a state bordering on somnambulism; she put her shawl over her shoulders, saying that she must go out and take a walk: this she was with difficulty restrained from doing, as her strength was much augmented at the time, and she declared vehemently "she would go out, as Mr. Sandys had ordered her." After a few minutes she began to tremble violently, clinging for support to any one standing near her: her strength gradually decreased, and she suffered herself to be laid upon the bed, when she shortly awoke sensible. This attack did not fail to come on every evening, at first for a few days spontaneously, afterwards in some way dependent upon the use of the catheter, as it always supervened immediately after that operation, though the time was purposely varied at uncertain intervals, between half-past eight and half-past ten, beyond which time, if the operation be delayed, the attack appears to come on spontaneously.

During the attack she exhibits a most pointed aversion to all females, not showing any friendly recognition of her sister, or any of her friends or acquaintance, positively denying their identity, and declaring that they are all in league to keep her in confinement.

This paroxysm daily increased in violence and in duration.* Persuasion, fear, and the cold "douche," having failed to quiet it, recourse was had to Battley's sedative solution, in half-drachm doses, given shortly before the expected time of the attack; the straight waistcoat was applied, and she was tied in bed. The attack came on as usual, but gradually gave way under the influence of the opiate; she slept about three hours. Her state, during the next and three following days, was, however, such as to forbid a perseverance in its use; she vomited her food constantly; her head was in racking pain; she felt worse than usual, and, to use her own expression, "perfectly wretched."

The duration of the attack at this time, if left uncontrolled, was usually two and a half to three hours, when she gradually became quieter, though she still continued muttering, and at length became sensible, without, however, having once closed her eyes.

I now felt that as mesmerism had the sanction of so eminent a physician as Dr. Elliotson in these cases, I was quite justified in trying it.

On the evening, therefore, of December 27th, the usual passes were made, and continued for about fifty minutes, beginning soon after the commencement of the attack. From that day to this, a period of more than a month, the manipulations have been followed by one uniform result—a state of coma (if I may so call it), or profound mesmeric sleep, coming on gradually after a certain length of time (requiring fifteen or twenty minutes before any effect is observed, and about thirty-five to produce the full effect), the respiration becoming slower, and so gentle as to be quite inaudible. At length a deep-drawn sigh, followed in about five minutes by a second, after which we find the extremities generally so rigid, that moving one leg moves the whole body. There is also always a great diminution, if not a total absence, of sensibility in the skin, as evinced by the following tests: pinching, pricking, scratching, and tickling, particularly the soles of the feet, which at other times she cannot endure.

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* So violent had she now become, and so malicious were her expressed intentions during the attack, both as regarded the destruction of herself and sister, the burning of the house, the frequent attempts she made to jump out of the window, and to dash her head against the wall, that more active means of restraint were thought necessary.

Her sense of hearing seems equally dull, showing no sign of perception when her own name is shouted in her ear; not the slightest movement even of the eyelids being visible when a watchman's rattle is suddenly sprung at her bedside. Yet it has appeared to me several times that, when in this state, certainly when in progress towards it, she is sensible of any exertion of the voluntary muscles, even of resistance without motion, and this after all the ordinary sensibility of the skin appears extinct.

She shows no consciousness when violently shaken, and the use of the sacrificator (having been cupped on the loins when in this state) produced a short expression of uneasiness rather than of pain; and she immediately relapsed into her comatose condition, not having in the morning the slightest recollection of what had passed.

The catheter, if introduced while she remains in this state, has the effect of partially rousing her, requiring a few more passes of the hand to quiet her.

She was left for two successive nights without the mesmerism; the attack each night came on as usual, lasted about three hours, and left her low, exhausted, faint, and sleepless; each morning she expressed herself as not being nearly so well. Next day the mesmerism was resumed, and she was quieted as usual.

About ten days afterwards the attack was one evening allowed to remain for forty-five minutes, at which time (her violence being undiminshed) the usual passes were made, and were soon followed by their ordinary effect.

From this mesmeric sleep she commonly awakes in about three hours, quite sensible. I should here say, that the above phenomena have as frequently been produced by my pupil, Mr. W. Whitehouse, as by myself; indeed it was he who first, by persevering for about fifty minutes, produced the marked effects above described, though I had several times previously observed a slight and transient drowsiness or quietude result from a few passes.

The introduction of the catheter in the morning has once or twice been followed by a short and slight attack, similar to that of the evening; this has likewise sometimes preceded the operation.

There has throughout been a remarkable temporary loss of power in the lower extremities. In the day-time she can walk firmly; whereas at night, during the attack, when she sets her feet on the floor, the knees sink under her, and she falls instantaneously, without staggering, and without attempting to save herself.

The same results have uniformly followed the mesmerism if practised in the day time, independently of the attack or of catheterism—the same succession of symptoms—the same insensibility to external impressions. It, however, requires less time to effect this, twenty to twenty-five minutes being sufficient. From this day-sleep she awakes in about three hours much refreshed.

In conclusion I have only to add, that should any member of our profession wish to convince himself, and to be an eye-witness of the results obtained, I shall be happy to show him the case at any time.

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PLASTER OF PARIS IN FRACTURES.

To the Editor of the Medical Gazette.

Sir, in my note-book I find the following extract; it must have been written many years since, as I have no recollection from whence I made it. The plan has frequently presented itself to my mind as worthy of trial, and I am happy to find my opinion, that it might be turned to good account, verified by Mr. Sweeting. The extract is headed, "Arabian Mode of Curing Fractured Limbs."

"The Orientals will never consent to have a limb cut off. Their practice is to lay the limb upon an oiled mat, after reducing the bones, and then inclose it in a case of gypsum, or plaster of Paris; an operation which they perform much in the same way as is practised by statuaries to take the cast of a limb. They first pour the plaster of Paris under the limb, until it rises to such a height as to touch the whole lower surface, filling up all inequalities, so as to form a sort of bed, placing at the same time a few hollow reeds at proper distances, and in such positions as to serve to conduct away through the plaster any fluid that might collect in the gypsum case, from the wounds, &c. When this becomes firm, which it does in a very short time, the limb is next covered with the same plaster of Paris, so as to inclose it completely, and, on hardening, to form a light case or plaster boat, to keep the parts in as natural a position as possible. They next make a sort of furrow or channel in the soft plaster, on the upper surface, to receive such vulnerary fluids, during the treatment, as they think conducive to the cure, and which filter through the gypsum to humect the leg at pleasure. To render this upper shell more easily removed or changed during the cure, if necessary to examine the state of the parts, &c., they make deep incisions into the soft plaster, both lengthwise and across, though not quite through, by means of which the upper case is removed without disarranging the limb. The firmness of the lower part, or bed, makes the removal of the whole boot practicable, should such a measure at any time be found expedient."

I have not seen Mr. Beaumont's pamphlet, and he may have possibly made mention of the practice being followed among the Arabs and eastern nations; if, however, it has not been noticed, it may probably be interesting to him and Mr. Sweeting to read the above.—I am, sir, with much respect,

Yours obediently,

Lyme Regis, Feb. 7th, 1838. THOMAS INGLE.

PLASTER CASTS IN FRACTURES.

To the Editor of the Medical Gazette.

Sir, nothing could be further from my intention and wishes than to despoil a professional brother of that reputation to which his skill and industry entitle him; and had I seen or heard of Mr. Beaumont's pamphlet, should have felt equal pleasure in acknowledging that I had been led to employ the plaster casts in consequence of his suggestions, as I had in referring to the paper published by Messrs. Bond and Gale in the Lancet, which was to me a satisfactory authority, as I know the former gentleman to be an ingenious man and good practical surgeon.

It is probable that Messrs. Bond and Gale had seen the ill-timed and injudicious critique on Mr. Beaumont's pamphlet in the journal edited by Dr. Ryan, as they refer to a notice which they "recollect reading some time before in one of the medical periodicals, wherein the method" of treating fractures by means of plaster casts was "condemned as impracticable and injurious."

Messrs. Bond and Gale's paper is dated July 1834, and in the following month a letter from Dr. John Browne, of Dublin, appeared in the same journal, saying, that Professor Kirby had employed successfully the plaster casts *ten years* before the appearance of the paper sent forth by those gentlemen, but it does not appear that Professor Kirby has at any time published an account of the method.

With whom this method of treating fractures originated, it would be difficult at this time to decide. I have been informed within a few days that an account of it was published *many years ago* in the *Medical Repository*, and it is long since that M. Lallemand introduced it from Montpellier into the Parisian hospitals. There can be no doubt that the practice has been handed down by tradition from a very remote period, but Mr. Beaumont is perhaps the first gentleman who has written a pamphlet expressly on the subject, for which our thanks are due to him. For my own part, I disclaim all title to originality in this matter, and can only express my grateful acknowledgements to the inventors and revivers of the method in question, which I am sure will be found in the fullest manner to answer the expectations of those practitioners who may be induced to employ it; that it will eventually supersede the ordinary splint and bandage, and be found, though rough in its exterior, to be the really "soft and easy method of treating fractures."

I am, sir, your obedient servant,
Bridport, 13th Jan. 1838. W. SWEETING.

In the paper I transmitted to you on the 24th ult. reference is made to a case then under treatment. In the present week the plaster cast has been removed, and perfect union of the fractured bones found to have taken place. The case was in the beginning very unpromising, in consequence of the bones having been a long time without an approach to union, but it has turned out extrtmely well.

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THE LATE MR. TWINING, OF BENGAL.

The death of this distinguished surgeon, caused a considerable sensation in Calcutta, and throughout India generally, on account of the high character he held amongst his brethren and the public at large. The disease of which he died was obscure, and it is not a little remarkable that he who had so diligently prosecuted pathology, should have expressly requested that his body should not be examined after death! This was a weakness which we should not have expected in such a man as Mr. Twining. It may be observed that for some time before his death, Mr. Twining thought he laboured under angina pectoris. On the 19th of August, 1835, his coachman ran the carriage against a gentleman's buggy, by which accident the gentleman was thrown out, and had his thigh broken. Mr. T. jumped out to help the sufferer, and felt something snap in his own chest. He became instantly sick and faint, followed by a sense of suffocation. The pulse was small, quick, and fluttering. He nearly expired on his way home. The sense of suffocation prevented him from sleeping that night. After a purgative next morning (August 11) he was more comfortable, and slept a little, from which he was awakened by a tickling cough. Some bloody expectoration was thrown up during this and the next day. He slept a little in the night of the 11th, and he took some calomel and blue pill every four hours—and applied sixteen leeches to the hypochondrium, which eased his breathing. He observed that some portion of one lung resembled red-current jelly. He went out in his carriage on the 22d and again on the 23d to see a patient. In the evening of the 22d he was delirious and very ill. Hitherto he had prescribed for himself. He now consulted Mr. Egerton, who found him with a pulse that could not be counted, but calm and collected. Four grains of calomel and six of pulv. Jacobi—blister to the scrobiculis cordis. He soon afterwards determined in his own mind that his disease was obscure intermittent, and took several doses of quinine. This was followed by considerable amelioration of the symptoms, and elevation of spirits. His pulse, however, continued at 216, with hurried respiration. He slept five hours that night. Next day (25th) he took a purgative, with some relief; but a decided change for the worse took place. He suffered frightfully from difficulty of breathing—and he expired at four o'clock.

The prohibition of a post mortem examination left the real nature of the disease in some doubt, though we think there can be no doubt that an aneurism had burst and pressed upon the large bronchial tubes. The prohibition alluded to, is most extraordinary, and with every disposition to adhere to the ancient but not very wise maxim—"de mortuis nil nisi bonum," we must say, that the medical man who examines the bodies of those who die in the wards of his hospital, and then binds his friends to refrain from ascertaining the nature of an obscure and fatal disease in his own body, is not merely *weak*, but we had almost said *dishonest*. He breaks one of the fundamental and most important commands of his Redeemer—"do unto others as you would they should do unto you." The deceased did an injury to the whole profession. What answer could a medical man expect from the friends of a departed relation, if a *post mortem* were requested? They might well quote the dying injunction of Mr. Twining! Let this be a warning to others!—*Medico-Chir. Rev., April*, 1838.

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ANIMAL MAGNETISM DINNERS.

It may interest our medical readers and their friends who should visit Paris, to know that they can have a good dinner, and afterwards, without additional cost, be magnetised, and put into a state of happy somnambulism, by the persons who have charge of the house. In a late Paris paper we find the following notice:—

"MAGNETISME.—Table d'Hote at half-past five; price five francs. After dinner magnetic sittings and gratuitous somnambulistic advice and prescriptions, at which the guests alone will be admitted. Fifteen tickets may be had for fifty francs.—Rue du Faubourg, Montmatre 33.

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BIOGRAPHICAL SKETCH OF DR. PHYSICK.

The readers of the Library for this month will have the perusal, among other matters, of an admirable sketch of the personal and professional life of the late Dr. Physick. The man and the surgeon, in his twofold character, is distinctly exhibited by Dr. Horner,—who, whilst he sketches with the freedom and accuracy which belong, or ought to belong, to biography, still has evidently his pen under friendly guidance.

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BIBLIOGRAPHY.

JOURNALS.

WE have received the SOUTHERN MEDICAL AND SURGICAL JOURNAL for March,—filled as usual with good original articles, reviews, and extracts, and a monthly periscope. It must be a source of well-founded regret if this Journal should not meet with the practical encouragement, to which it has such strong claims, from the practitioners of the south.

The MEDICAL EXAMINER has of late appeared in a new dress,—improved paper, type, and cover,—but without any sacrifice to appearances by diminution of intrinsic worth. Its pages continue to be enriched by the lectures of Dr. Chapman,—a fact which alone would attract to the Examiner readers and friends. In the two last numbers we see, also, Lectures on Surgery by Dr. Harris, and Clinical Lectures by Dr. Gerhard,—delivered at the Philadelphia Medical Institute; and a Lecture on Lithotripsy by Dr. Randolph at the Pennsylvania Hospital. Each number has Bibliographical Notices, well penned, and, in the main, in a spirit of sound criticism. Clinical Reports for the Pennsylvania Hospital is also a regular and valuable item in the Examiner. The success of the work is, we learn, no longer a matter of doubt.

The WESTERN JOURNAL OF THE MEDICAL AND PHYSICAL SCIENCES for the first quarter of the present year is before us. As usual it contains much matter, and much that is good. We find—1, *Clinical Reports*, arranged by the Editorial Committee. 2, An essay on *Alterants*, by Dr. Harrison; written in a discreet frame of mind, and abounding in useful remarks and suggestions. 3, *Vaginal Obliteration*, by Dr. Carrall; two cases of,—quite instructive. 4, *Recovery from Wound in the Stomach*, by Dr. New. 5, *Tracheotomy in Tonsillitis*, by Dr.

Lyman. 6, *Odontalgia*, by Dr. Hullihen. 7, *Death from Eating Fruit*, by Dr. R. C. Mann. 8, *Mineral Springs of Virginia*, or *Notices of the Blue Sulphur and Hot Springs of Virginia*, by one of the Editors: we suppose the ever-active and exploring Dr. Drake.

The Reviews and Bibliographical Notices in the *Western Journal* consist of two articles, viz., *American Medical Schools*, and *Diseases of the Larynx.* The concluding part is of *Miscellaneous Intelligence—Analytical and Original.*

On one subject discussed in the *Western Journal* we should like to make some remarks more than our time and limits just now will admit of. The article before us is in the right spirit. It argues in favour of a reasonable and requisite period being not only allowed, but insisted on, for the study of medicine prior to graduation. "For ourselves, we do not hesitate to say, that the universal and unalterable law should be—*at least* FOUR *years of study*." This is the opinion of the Medical Convention of Ohio, a running commentary on which makes the article in the Western Journal.

One of the resolutions of this body is, that the lecture terms in all the schools of the Union is too short. Even short as is the period, many students contrive to make it shorter, by going home before it is completed. A remedy for this, proposed by the reviewer, is a good one, and ought to be carried into practice without delay; viz.—"Every student ought, therefore, to be required to take with him a ticket of valediction, not less than of matriculation; and this, except for *special* reasons, should never be issued till the last valedictory was pronounced."

The limited range of studies prescribed and pursued in nearly every school of the Union, is next animadverted on. An evil of greater magnitude, pointed out by the Convention, is the defective preliminary education of students of medicine.

The last resolution of the Convention is worthy of notice. It suggests, that if the various schools of the Union would send delegates to a Convention in some central city, they might devise correctives for many of the imperfections in their organization and administration which now exist. This, argues the reviewer, could undoubtedly be done. "Philadelphia is the proper place for such a meeting, and the University of Pennsylvania should appoint the time and give the invitation."

The Analytical and Original department opens with an article headed "To our Subscribers." The initial sentence, though not original in its conception, is, we, who of course are very disinterested personages in such a question, cannot but aver to be evidence of excellent judgment and discretion. "It is our intention, after the publication of this number of the WESTERN JOURNAL, to send it to none of our subscribers, out of the city, who do not pay in advance." Were this the rule with the conductors of all periodicals, both the publishers and readers would be, we are sure, in better humour with each other,—and mutually benefit one another, more than they do at present.

The LOUISVILLE JOURNAL OF MEDICINE AND SURGERY. No. I. January, 1838. Edited by Lunsford P. Yandell, M.D., Professor of Chemistry in the Louisville Medical Institute; Henry Miller, M.D., Professor of Obstetrics in the same; and Theodore S. Bell, M.D.

This, our readers will see from its title, is a new Journal, an addition to the list, already not small, of vehicles of medical knowledge and of medical opinions. The time is, we hope, gone by, when every new attempt in the walks of periodical literature is pronounced as a matter of course, and without understanding of its purport or tendency to be indicative of wonderful talent and unequalled learning. Such a strain of unmeaning eulogy is positively injurious, not only to the cause of literature, but to the things eulogised. Still less justifiable would be that other, though less general fashion of presupposing weakness and necessary imperfection on account of the origin of a literary attempt—the region in which, and the author or authors by whom, it was made. Into a very close analysis of the first number of the Louisville Journal, we do not feel ourselves called upon to engage; not because it would not bear such an analysis, but because the first number of a periodical, though a demonstration, is seldom proof of the ability and skill of its conductors. Of this the editors seem to be aware, when they apologise to their readers for the space occupied in the present number with matter, "which, however interesting to ourselves, embarked in the undertaking of planting a new school of medicine, is too forensic and local in its character to repay the perusal of such as prize periodicals only for the scientific and practical treasures they enclose, and who look to them for a digest of the voluminous productions of the age."

With this explanation of "a fault so venial," we need not take any special exception to the first article, which is an introductory lecture, by Dr. Caldwell, at the opening of the Louisville Medical Institute. The lecture itself is misplaced in a medical journal, but if we are indebted to this circumstance for its publication, no complaint should be made. It is "A succinct View of the Influence of Mental Cultivation on the Destinies of Louisville," and embraces a consideration of the rise of that city to its present population and commercial prosperity; its obvious literary and scientific deficiencies; the equally obvious call for their removal; and the means by which this gratifying result can be obtained. The contrast between Louisville as it was, and Louisville as it is, within a period of less than a half century, is well drawn. We have only room for a few sentences.

"Forty years ago Louisville was but little else than a stockade fort, and a few blockhouses and cabins, to protect its handful of hardy and heroic inhabitants from the summer sun and the wintry storm; and from the war weapons of the murderous foe that surrounded them. At that period, and even long afterwards, it was visited only at protracted intervals by a few flats and other forms of row-boats, which slowly descended the current of the river, in a voyage full of hardship and peril, to a far distant and precarious market, from which, after a long and anxious absence, but few of them returned, freighted with either necessaries or luxuries for the people. Correctly speaking, it enjoyed neither trade nor commerce, arts nor agriculture."

The lecturer then describes the wonderful influence, and the revolution produced by its means, of steam, and gives the other side of the picture.

"In proof and illustration of its mighty gain from this source of improvement, what is Louisville *now*, in contrast with what it was at the period referred to? In most respects, I reply, as directly and strikingly the reverse, as words can express, or fancy conceive. It is now a large, populous, and flourishing city; flush and vigorous in commerce and the arts; free from the dangers of an insidious foe; abounding in wealth, and bounteously provided with all the necessaries and comforts, luxuries and elegancies of a life of enjoyment; while its wharves are crowded with steam-vessels, some of them the most splendid and magnificent in the world, which, in their swallow-like passages to and from the remotest ports and places, set at defiance the stream and the wind, and in their operations, as if instinct with supernatural power, pour into its lap the productions of every quarter of the globe."

We have already, without having been aware of it, made a practical apology for the extraneous matter in the Louisville Medical Journal, by copying a part of it in our Journal, and if space allowed we should like to introduce more.

After having described "what may be justly regarded as two distinct ages—the age of danger, war, and heroism; and the age of security, commerce, and the arts,"—the lecturer thinks that another age in the history of Louisville is now commencing:—"It is the age of MENTAL CULTIVATION." It was an age of this kind that has given Greece and Rome more abiding and extended fame than their ages of heroism and commerce. Valuable views, and pertinent and salutary suggestions are offered in the remaining and chief portion of the lecture, on the importance of mental cultivation, and the means by which it is to be accomplished. Among these latter are the regard and adequate pecuniary remuneration which ought to be given to *teachers.*

The selection of Louisville in preference to other places, "as the favoured emporium of education and letters," is next enforced by various reasons, direct and analogical, which will, we sincerely hope, carry conviction with them on the minds of the parties appealed to on the occasion, and who are the most interested in the solution of the problem.

The second essay in the Journal is *Remarks on Febrile Diseases, with Cases,* by Dr. Harden. Thought and practical knowledge are displayed by Dr. Harden. He bears hard on castor oil in the following paragraph:

> "But while Epsom salts, jalap, and other hydrogogues have fallen into almost total disuse in the treatment of fever, there is one article retained, under the idea that it is a mild, bland, and soothing aperient—I allude to castor oil. Against this medicine I must bear the most unequivocal testimony, as commonly used; and I give it as my opinion that it generally does more mischief in the country than any other one purgative—always excepting Morrison, Brandreth, and other nostrum venders' pills."

Extraction of a Nasal Polypus, by Dr. Brent follows; then *Miscellaneous Cases,* by Dr. T. S. Bell, one of the editors, which present features in detail, of importance to the practitioner.

A *Fatal Case of Rupture of the Uterus in the Fifth Month of Utero-gestation,* is the subject of a paper by Dr. Rogers.

A "Discourse commemorative of Philip Syng Physick, M.D., by Dr. Caldwell," next finds a place in the Journal.

The list of essays is concluded by the history of a "Case of Fracture of the Thigh Bone. By T. L. Caldwell, M.D., &c."

We are glad to find such good practical evidence furnished, as in this case, that Dr. Caldwell, the younger, is fully, fairly, and earnestly embarked in the labours and duties of his profession. We wish him all the success which a patient and assiduous attention to his vocation will, with his resources and attainments, certainly command.

The Reviews in the Journal are of a Treatise on Urinary Calculus, by Mr. Crosse of Norwich; and of Practical Observations on Midwifery, by Dr. Ramsbotham.

Under the head of Analecta, we have various details in surgery and therapeutics.

An Appendix, stitched to the present number of the Journal, consists of an Oration, commemorative of Laying the Corner Stone of the College edifice of the Louisville Medical Institute, on the 22d Feb. 1838. By the Hon. George M. Bibb. It abounds with excellent views, well expressed.

Nature and Treatment of Diseases of the Ear. By Dr. WILLIAM KRAMER. Second edition of the author's Treatise on Chronic Deafness, much improved and enlarged, &c., &c. Philadelphia: Thomas, Cowperthwait &. Co. 1838. Pp. 250. 8vo.

THE very full review, or rather digest of this work of Dr. Kramer's, in the first volume of our Journal, p. 217–35, taken from the British and Foreign Medical Review, may be considered as an expression of our sentiments in its favour.

Clear, concise, and practical in his views of the pathology and treatment of the diseases of the ear; exercising a discriminative criticism in his survey of the opinions and recommendations of those who have preceded him in this line,—rejecting the hypothetical, and alternately ridiculing and gravely censuring presuming charlatans, Dr. Kramer has made a contribution to medical science inmeasurably in advance of any labour of a similar kind, to which the English or American practitioner and student can obtain access. This work may, without any exaggeration, be called the best extant. For its being so readily accessible to the profession in this country and in England, we must thank the able translator, Dr. Bennett, who has given, in his task, creditable proofs of learning and industry.

Phrenology Vindicated, and Anti-Phrenology Unmasked. By Charles Caldwell, M.D. New York. 1838. pp. 156. 12mo. With a Lithographic Engraving.

This work is published under the auspices and superintendence of the New York Phrenological Society. It is chiefly a reply to the strictures on Phrenology contained in the lectures published by Dr. Sewall, and on which we wrote some comments in this Journal last summer. Inconsistencies and contradictions in Dr. Sewall's criticisms and animadversions, which we then pointed out, have been reprobated in no very measured terms by Dr. Caldwell.

Of the spirit in which the critic is reviewed on the present occasion, the opening paragraph will give a good idea.

> "In the heading of this essay, the term 'unmasked' is used under the entire extent and strength of its signification. It embraces in its meaning the detection, in the work of an antiphrenologist, of plagiarism, literary garbling and perverted quotation, fabricated charges, offensive and groundless, against Phrenology and its advocates, and other gross misrepresentations deliberately made for the purposes of deception. It embraces in fact the exposure of a long and multifarious catalogue of studied, artful, and culpable devices, expressly designed by an antiphrenological writer for the suppression of truth, the support, continuance, and propagation of error, and the enhancement of his own spurious pretension to talent and power in controversy, as well as to science and letters. To add to the demerit and offensiveness of the whole, these faults are committed under the show of a puritanical uprightness and candour of intention, and of great extent and accuracy of research. Hypocrisy therefore mingles in the aggregate, and increases at once its amount and disrepute."

The reader is not kept long in doubt of who is the antiphrenologist thus portrayed. Dr. Sewall is forthwith brought into court, and receives such a reprimand, that if it do not disqualify, it will be apt to indispose him from any sudden outbreak against phrenology. "*Plagiarism, literary garbling*, and *perverted quotation*," are among the charges brought by Dr. Caldwell against the author of the "two lectures."

We have not room to follow the exposer of these sins in his specifications,—nor to say how far they are all sustained. A reference to the book itself will gratify the reader on these and other particulars illustrative and collateral. We would remark, however, that an inquirer after truth must not draw inferences from Dr. Sewall's specious but fallacious reasoning, until he shall have read the present exposition of their true nature.

But any feelings of displeasure which a candid phrenologist, we ought to say, a candid and intelligent reader of any school of physiology or philosophy, might at first feel on a perusal of Dr. Sewall's lectures, will soon be dispelled after a glance at the pages of Dr. Reese. The first are all fairness and logic compared with the vulgar stupidity displayed in the latter. It is in vain to pretend to reason with a man who has no regard for facts, and who displays his love of religion by slandering and aspersing, in terms of direct, and repeated, and, to himself, positively known, falsehood.

We took the trouble to expose, in this Journal, some time back, the calumnies and dereliction from sense and philosophy of Dr. Reese, as evinced in his "Fruits of Phrenology." As far as he himself was concerned, the exposure has not been productive of any amendment. The same falsehoods and perversions are repeated in his "Humbugs of New York," without any decent cover of reasoning, or the slightest embellishment of wit. We had determined to leave him, as far as he was connected with the subject of phrenology, to the quiet contempt which he so well merits; and now have only been induced to mention him at all, on account of his having attracted the notice of Dr. Caldwell. The following, though a strong, is, we believe, a literally correct expression of the real character of Dr. Reese's production:—

"The only sentiments it can awaken in my mind are pity for its weakness and puerility, contempt for its conceitedness, and abhorrence for its mendacity. It is throughout a feeble, but coarse and malicious *pasquinade*, and attempt at ridicule, instead of a *fair and manly discussion.* Though its author cants about morality and religion, it breathes, from beginning to end, a spirit as *immoral* and *unchristian*, because mendacious and abusive, as it is insolent and discourteous. And in neither of these qualities is it surpassed by the vilest political tirades of the day."

A single extract from the mendacious essay of Dr. Reese will not only show the correctness of the above charge, but also in a great degree justify the terms in which it is preferred. He thus summarily disposes of the religion of all those who believe in Phrenology.

"And that the science of christianity, and the book of Revelation are entirely at variance with Phrenology, needs no other proof than the fact every where apparent, that *all the hosts of infidelity* are marshalled in its favour, while its originators, propagators and prominent teachers, from Gall and Spurzheim down to Amariah Brigham, M.D., have been either sceptics or free thinkers, deists or atheists, neologists or materialists."

Address to the Graduates of the Medical College of Georgia. Delivered April 2, 1831. By the Rev. Elijah Sinclair. Augusta. Pp. 11.

This is just what a charge to graduates ought to be. It sets forth in clear terms the duties to be performed, the qualities to be nurtured, and temptations to be avoided. We do not remember to have seen so much pertinent advice, so well expressed in such brief space.

THE RED SULPHUR SPRINGS OF VIRGINIA.

In a preceding number the publication of a pamphlet on the above-mentioned springs, by Dr. Huntt, of Washington, was announced. We have to regret that the necessarily brief space allotted for the purpose, will prevent our now giving as copious extracts as we could wish, with a view of exhibiting the efficacy of the red sulphur in the relief and cure of chronic pulmonary diseases.

Dr. Huntt had been himself a sufferer from slight hemorrhage, followed by cough, copious expectoration, hectic chills, fever, and night sweats, from which he entirely recovered after a visit to the springs, and drinking the water. He introduces the histories of many cases of a similar nature in which the relief was complete.

"The water of the red sulphur seems to act by *soothing* irritation, lessening the frequency of the pulse, and by subduing the inflammation of the tissues in contact with the tubercles, and thereby rendering the tubercles harmless; and also by suspending that tendency of the system to generate or deposite tuberculous matter."

The matters in solution, in the red sulphur waters, do not either in their number or amount, give an idea of its medicinal efficacy. Since the publication of the work on "Baths and Mineral Waters," by the editor of this Journal, the experience accumulated goes to confirm the opinion there advanced, of the great effect of the water of red sulphur in controling the action of the heart, and, consequently, of diminishing the frequency of the pulse.

In page 433 of Dr. Bell's work, a medical friend, amongst other expressions of his confidence in the powers of the waters, says, "I have (not once or twice, but often) seen the cough, hectic fever, diarrhœa, and night sweats, subside under the use of them. The pulse I have known reduced from 104 to 80 in twenty-four hours; while the strength was evidently improved, and the digestive organs enabled to perform their functions with increased vigour."

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ANATOMY AND PHYSIOLOGY.

[From the British and Foreign Medical Review.]

REMARKS ON TIEDEMANN'S COMPARISON OF THE NEGRO BRAIN AND INTELLECT WITH THOSE OF THE EUROPEAN.

BY ANDREW COMBE, M.D.

WE may repeat the language of the British and Foreign Medical Review, by saying:—"As we assisted, by a short notice of Tiedemann's paper, to disseminate the singular errors which it contains, we deem it the more necessary to notice Dr. Combe's triumphant refutation of them. Dr. Combe's paper, however, like everything that proceeds from the pen of that acute observer and philosophical reasoner, is in itself highly important. If all the advocates of phrenology were possessed of the calmness and philosophical caution displayed by Dr. Combe, in his communications on its principles and phenomena, it would make more rapid progress in the estimation of philosophers and men of science. We take this opportunity of recommending to our readers the journal in which Dr. C.'s paper appears, as containing in every Number much interesting and important information."

Tiedemann's grand objects are to prove, 1st, that the opinion of Negro inferiority, expressed by Camper, Soemmering, Cuvier, and almost all naturalists of any eminence, is incorrect; 2dly, that the Negro brain is equal in size, and similar in structure, to that of the European; and, 3dly, that, consequently, the former is equally capable of civilization as the latter, and owes his present inferiority entirely to bad treatment and unfavourable circumstances, and will lose it when placed in the position in society which has been recently assigned to him by the "noble British government." These positions are urged by Tiedemann with so much philanthropic warmth, and with such hearty zeal in the cause of the Negro, that we feel no small reluctance to enter the lists against him: but, having a thorough reliance on the supremacy of truth, and believing its diffusion to be fraught with more ultimate happiness to the Negro himself than he can possibly derive from the propagation of an amiable error, we offer no apology for attempting to show that the prevailing opinion remains unaffected by any evidence brought against it by Tiedemann, and that *de facto* the Negro brain is inferior in intellectual power to that of the European.

In pursuance of the above objects, Tiedemann first inquires whether "the Negro has the same quantity of brain as the European?" and, to ascertain the fact, he institutes an elaborate comparison between the weight of the brain, as determined in upwards of fifty Europeans of different ages and countries, and its weight in several Negroes, examined either by himself or others; and the results obtained are not only full of interest to the phrenologist, but well worthy of the attention of those among our opponents who still continue to ridicule the principle of size of brain being, *cæteris paribus*, a measure of mental power. Every fact mentioned by Tiedemann adds to the already overwhelming proofs adduced by the phrenologists; but, coming in this instance from the pen of a hostile authority, they may probably carry more weight with them than if found in a phrenological essay.

After quoting the statements of many authors, and detailing the weights of fifty-two European brains examined by himself, Tiedemann mentions that "the weight of the brain in an adult male European varies between 3℔s. 2 oz. and 4℔s. 6 oz. troy. The brain of men who have distinguished themselves by their great talents is often very large: the brain of the celebrated Cuvier weighed 4℔s. 11 oz. 4 dr. 30 gr. troy, and that of the celebrated surgeon Dupuytren weighed 4℔s. 10 oz. troy. The brain of men endowed with but feeble intellectual powers is, on the contrary, often very small, particularly in congenital idiotismus." Here, then, is ample confirmation of the phrenological evidence, and from a source which cannot be considered as biassed in our favour. Tiedemann proceeds—"The female brain is lighter than that of the male: it varies between 2℔s. 8 oz. and 3℔s. 11 oz. I never found a female brain that weighed 4℔s. The female brain weighs, on an average, from four to eight ounces less than that of the male; and this difference is already perceptible in a new-born child. This also corresponds entirely with the long repudiated statements of the phrenologists, and it is pleasant to see the fact thus broadly admitted.

Tiedemann goes even beyond the phrenologists in his applications of the principles of size being a measure of power. He says, "There is undoubtedly a very close connexion between the absolute size of the brain and the intellectual powers and functions of the mind. This is evident from the remarkable smallness of the brain in cases of congenital idiotismus, few much exceeding in weight the brain of a new-born child. Gall, Spurzheim, Haslam, Esquirol, and others, have already observed this, which is also confirmed by my own researches. The brain of very talented men is remarkable, on the other hand, for its size," (p. 502.) Here certainly is ample corroboration of the influence of organic size on mental power; but Tiedemann has fallen into the very serious error of taking the absolute size of the brain as a measure of intellectual power only; whereas, it indicates, as might be expected *à priori*, absolute mental power, without determining whether that power lies in extent of intellect, in strength of moral feeling, or in the force of passion or affection. A brain of four pounds' weight may be large in the anterior lobe and smaller in the middle and posterior lobes; or its chief size and weight may be in the posterior lobes, and the anterior portions be actually small. In both cases, Tiedemann would infer equal "intellectual" power; whereas, the phrenologist would perceive at a glance that, in the former, the intellectual ability would far preponderate, while, in the latter, the power of mind would consist entirely in intensity of feeling, and the intellect, properly so-called, be rather weak than strong.

If, for example, we compare the Charib with the Hindoo brain, we find the entire mass of the former considerably to outweigh the latter; and, according to Tiedemann, we should find more intellectual talent in the Charib. The fact, however, is notoriously the reverse, and the explanation is very easy when we distinguish the regions of the brain in which the size exists. In the Charib, the anterior lobe is very small, in perfect harmony with his poverty of intellect; but the posterior and basilar regions of the brain are very large, also in harmony with his ferocity and energy of passion. In the Hindoo, again, the reverse holds: the anterior lobe is well developed, and so is his intellect; but the basilar region, so large in the Charib, is small in him, and, consequently, in vehemence of passion, active courage, and general force of character, the Hindoo is greatly inferior to the more savage Charib.

The same distinction occurs every day in social life. We meet with an individual (a criminal, for instance,) in whom the brain is absolutely large, but who is nevertheless stupid in intellect, and powerful only in the department of the propensities; while, on the contrary, we find many an amiable member of society possessed of a brain smaller in absolute size, but far superior to the criminal in the size of its anterior lobe, or organs of intellect, and consequently far superior to the criminal in thinking power and general talents; results at utter variance with Tiedemann's rule, but perfectly reconcileable according to the phrenological application of the principle.

Hence it is obvious that, of two brains, both precisely equal in absolute weight, one may be very deficient in intellectual endowment compared to the other, and this deficiency be perfectly apparent on inspection, when we attend to the region of the brain in which the preponderance lies. But as Tiedemann, throughout the whole of his experiments, utterly disregards this distinction, confounds intellectual power, moral feeling, and brute propensity under one head, and treats of the brain as if it consisted of only one lobe, with only one function,—namely, the manifestation of intellect,—his inference that, because the Negro brain is equal in weight to the European, therefore the Negro is also his equal in intellectual power, falls to the ground, as unwarranted by the evidence. To render his conclusion worth anything, he must show, not only that the two brains are equal in absolute size, but that the anterior lobe, or seat of intellect, is equally developed in both; a position which he never attempts to substantiate, and which is at variance with some parts even of his own facts.

Having obtained the weight of a sufficient number of European brains, Tiedemann next endeavours to ascertain the weight of the Negro brain; but, from the very small quantity of Negroes to be found in Europe, he has great difficulty in obtaining anything like a fair average: in fact, he gives the weight of only four Negro brains: one of a boy of fourteen years of age, stated, on the authority of Soemmering, to have weighed 3 ℔s. 6 oz. 6 dr.; a second, of a tall and handsome Negro, of twenty years of age, which weighed 3 ℔s. 9 oz. 4 dr.; a third, of a large Negro, mentioned by Sir Astley Cooper, of 49 oz.; and a fourth, examined by himself, of a man twenty-five years of age, which weighed 2 ℔s. 3 oz. 2 dr.

In comparing these results with the average weight of the European brain, as stated by Tiedemann himself, it is singular to observe the extent to which they are at variance with his inferences. The European average runs, he says, from 3 ℔s. 2 oz. to 4 ℔s. 6 oz., while the average of the four Negroes rises to only 3 ℔s. 5 oz. 1 dr., or 3 oz. above the lowest European averages; and the highest Negro falls 5 oz. short of the highest average European, and no less than 10 oz. short of Cuvier's brain. And, as if these facts were not inconsistent enough with his conclusions, Tiedemann first affirms that in the Negro "the length and height of the cerebral hemispheres do not visibly differ from that of the European, their breadth only being somewhat less," (p. 515); and immediately after subjoins three tables of the "Dimensions of the Cerebrum of Negroes," "Dimensions of the Cerebrum of European Males," and "Dimensions of the Cerebrum of European Females;" the figures of which directly contradict his assertion! This seems almost incredible; but, on summing up the averages, we find the following results, namely,

		Inches.	Lines.
Average length of brain in	4 Negroes	5	11
	7 European males .	6	2 1-7
	6 females .	5	10 1-2
Average greatest breadth in	4 Negroes	4	8 1-6
	7 European males .	5	1 1-7
	3 females .	5	4 1-3
Average height of brain in	3 Negroes	2	11 1-3
	7 European males .	3	4
	4 females .	2	9 1-2

From these tables it is evident that the dimensions of the brain are smaller in the Negroes measured by Tiedemann than in the European; but, for our own parts, we are not disposed to lay much stress upon results drawn from such a limited number of facts, and we notice them merely to show that, such as they are, they directly contradict the arithmetical proportions or conclusions drawn from them by Tiedemann. The latter, indeed, grants all that we contend for, when, in his description of the Negro brain, (p. 515,) he states that "the anterior portion of the hemispheres is something narrower than is usually the case in Europeans," because, as the anterior portion is the seat of intellect, this is really equivalent to conceding that the Negro is naturally inferior in intellectual capacity to the European.

Not having access to a sufficient number of the actual brains of Negroes, Tiedemann has endeavoured to supply the want of direct evidence by comparing the capacity of the Negro skull with that of the European, and thus obtaining an index to the relative size of their contained organs. For this purpose he filled the skulls with millet-seed, and carefully noted the quantity which each contained.

. . . .

After giving several pages of tables comprehending the weight of the quantity of millet-seed required to fill Ethiopian, Caucasian, Mongolian, American, and Malayan skulls, Tiedemann says, "It is evident, from the comparison of the *cavum cranii* of the Negro with that of the European, Mongolian, American, and Malayan, that the cavity of the skull of the Negro, in general, is not smaller than that of the European and other human races. The result of Hamilton's researches is the same. I hope this will convince others that the opinion of many naturalists, such as Camper, Soemmering, Cuvier, Lawrence, and Virey, that the Negro has a smaller skull and brain than the European, is ill-founded, and entirely refuted by my researches." (P. 511.) Now, we have already seen that the real question of interest, as regards Negro improvement, is not so much the general size of his brain as the relative size of its anterior lobe and coronal surface compared to the basilar and posterior portions: but, even as concerns the absolute size of the whole brain, it is an extraordinary fact that Tiedemann's own tables gives a decided superiority to the European over the Negro, to the average extent of nearly four ounces! The average capacity of forty-one Negro skulls in his own tables amounts only to 37 oz. 1 dr. 10 gr., while the average of seventy-seven Europeans of every nation, also in his own tables, amounts to 41 oz. 2 dr. 30 gr. Of the Negroes, indeed, three are females; but even subtracting these, the Negro average amounts only to 37 oz. 6 dr. 18 gr. Here, then, on Tiedemann's own showing, we have, first, an inferiority in the dimensions of the Negro brain and a greater narrowness of its anterior lobe; and, secondly, a marked inferiority in the capacity of the Negro skull to the extent of about one-tenth, and yet he very strangely infers that both are equal to those of the European. . . . .

That a physiologist of Tiedemann's talent and merited reputation should have failed so signally in an investigation which he recognizes as one of so much importance, and upon which he has bestowed so much labour, and with so benevolent an intention, is much to be lamented; but the cause which has led to his failure is still more to be lamented, because it is humiliating to him as a man of science, and is the natural and just result of his own conduct. Well did Tiedemann know that the great discovery of his immortal countryman, Gall, lay directly in his way in the inquiry in which he was engaged; and that, if true, it must be of immense use to him in conducting his inquiry. Had he availed himself of its aid, he would have seen at once the futility of any investigation based on considering the whole brain as the organ of intellect, and would thus have avoided becoming the instrument of authoritatively diffusing mischievous error, where he was anxious only for beneficent truth. Tiedemann, however, confiding in the strength of his own merits and the durability of his own fame, chose to treat the phrenological physiology of the brain with contemptuous silence, to disregard its facts, and to reject its aid as a guide. He has preferred being a leader in the train of error to being a subordinate in the march of truth; and, as he has chosen his path, so shall he be rewarded. His contribution to the Royal Society's Transactions, although hailed at present as an honour to its author, will ere long be regarded as a beacon to warn others how very little a first-rate talent, great industry, and a European reputation can accomplish when employed in a false direction, and how indispensable to true greatness is the direct and undeviating pursuit of truth.—*Phrenological Journal.* No. liv. *Dec.* 1837.

ON THE EXISTENCE OF THE POLYSTOMA SANGUICOLA IN THE HUMAN BLOOD. BY DR. DELLE CHIAJE.

CASE I. Was of a man, æt. twenty-five, subject for some time to hæmoptysis. His temperament was sanguine, his parents were robust, but he had been suckled by a nurse affected with syphilis. He led a dissipated life, had had syphilis and itch. The hæmoptysis occurred first in an alarming manner, after he had taken a bath in the sea, during the heat of summer. Expectoration continued notwithstanding the means which were employed. On one occasion the patient was seized with an attack of hæmoptysis in the presence of his physician, Dr. Gallo. On examining the blood half an hour afterwards, Dr. Gallo found some small flattened worms, resembling little leeches, which were attached to the sides of the basin. The parents assured him that they had observed similar animals every time that an attack of hæmoptysis had occurred. The parents became phthisical, and Dr. Gallo had no further opportunity of observing the matters expectorated.

CASE II. M. Tolinea observed a similar case of hæmoptysis, in an individual who had been previously affected with syphilis and scabies. Three of the Polystoma sanguicola were found in the blood expectorated. From this period, the patient was given into the charge of Dr. Delle Chiaje, but here also the disease rapidly passed into phthisis, and the author was disappointed in his endeavours to preserve alive these remarkable entozoa.

The author regards the two preceding cases together with others of a more ancient date, (e. g. that of Borelli in his Obs. Cent. iii. Obs. iv.,) as irrefragable proofs of the existence of the polystoma, although it has been denied by the majority of naturalists. Dr. Delle Chiaje endeavours to dissipate all doubt on the subject by supposing that the polystoma does not exist in the blood itself; according to his view, it is lodged in the pulmonary parenchyma in the same manner as the diastoma hepaticum occupies the parenchyma of the liver, the tetrastoma, the papillæ of the kidneys, and the polystoma pinguicola, the ovaries. It is not until after they have perforated the walls of vessels that these animals enter the circulation.

The author thus describes the polystma. It resembles at first sight, a drop of coagulated blood, flattened like the pips of a gourd, but of a deeper red colour than that of the blood which surrounds it. When touched, this seeming drop of blood moves distinctly. The animal has two extremities, the one pointed, the other rounded; in its contracted state its length is three lines, and its breadth two lines. When it stretches itself, its length is ten lines and its breadth three lines. Its structure, which is almost annular, may then be distinguished. It executes its movements by a double extension, in the same manner as leeches. The animal reacts against the least impression, and passes immediately from rest to a motion more and more quickened, according as it is found swimming in a fluid or attached to the sides of a vessel.—*Osservatore Medico di Napoli.*

ON THE EXISTENCE OF THE OVUM AT A VERY EARLY PERIOD IN THE FEMALE ECONOMY,

AND ON THE CONSEQUENT NECESSITY OF ADMITTING A NEW PERIOD IN THE HISTORY OF HUMAN DEVELOPMENT.—BY DR. C. G. CARUS, OF DRESDEN.

BY the labours of preceding physiologists the axiom had been established, "that man and the mammalia derive their origin from an ovum existing in the ovary previous to impregnation," but there were wanting data to establish at what period of life these ova first become developed in the ovaries of man and of the mammalia. The investigation of this point forms the subject of the paper before us, Dr. Carus with a little practice was soon able to pick out the Graafian vesicles from the ovaries of very young calves, and to submit them to examination beneath the field of the microscope. The extracted vesicle was carefully laid open with a cataract needle, and a little attention then sufficed to distinguish the ovum, surrounded by the discus proligerus, swimming about in the fluid which escaped. The chorion, the yolk, the germinal vesicle with the cicatricula were all remarkably distinct.

The opportunities of examining the ovaries of female infants were more difficult to be obtained; but in the spring of 1837, the opportunity of examining the ovary of an infant four days old presented itself. In this case it was impossible to detect a Graafian vesicle already filled with fluid and containing an ovum, but on submitting thin segments of the ovary, subjected to moderate pressure according to the method of Purkinje and Valentin, to examination, there was no difficulty in perceiving ova of various sizes, characterized by the yolk and germinal vesicle, but closely enclosed by the Graafian vesicle and substance of the ovary.

The examination of the ovary of an infant, one and a half years of age, showed considerable differences. In this case a number of the Graafian vesicles had expanded to the breadth of a quarter or even half a line. The child had been affected with rhachitis, and the circulation had in consequence been obstructed, and blood even been effused into some of the vesicles. In others the ova were found in a semi-dissolved state; but in one of the largest the ovum was found quite entire and distinct, and in another there was found an imperfectly developed ovum, in which the clear circle of albumen, between the membrane of the yolk and the chorion, and part of the yolk were discernible. Dr. Carus here calls attention to the pathological conditions of the ova, as above alluded to, as throwing light upon the origin and cause of dropsy and degeneration of the ovaries, and as affording an explanation of one of the causes of sterility.

In examining the ovaries of a girl, æt. four years and a half, who had died of pneumonia, both ovaries were found to contain one perfectly developed Graafian vesicle six-eighths of a line in diameter, each of which contained on ovum of the one-twelfth of a Vienna line in diameter, with yolk, germinal vesicle, and cicatricula all perfectly distinct, swimming in a clear albuminous fluid. Besides these large vesicles both ovaries contained a number of smaller ova from one-sixtieth to one-fourteenth of a Vienna line in diameter.

From these observations Dr. Carus concludes: 1stly, that the ova, the germs of future individuals, are already formed before the birth of the female, so that in the last period of pregnancy three generations exist in the body of one individual; 2dly, that shortly after the birth of the female, at least before the end of the first year, several of the Graafian vesicles become developed to such a degree around the ova, as to present an appearance not materially different from their condition at the period of puberty, and consequently, it is rendered probable that the only obstacle to impregnation at an early age lies in the structure of the external parts. 3dly, that the matured human ovum, when it has in some measure been isolated from the maternal parts by the development of the Graafian vesicle and its fluid contents, may remain in a state of latent life for an indefinite number of years till roused into activity by the stimulus of impregnation. 4thly, that a new period, that of the latent life of the ovum, must henceforward be adopted in the history of the development of man.

Dr. Carus concludes his paper with some comparative remarks on the latent life of the human ovum, and the ova of plants and insects. It is well known that the seeds of plants may retain their latent life for thousands of years, but this quality is essentially different from the latent life of the human ovum, as in the latter there has been no fructification, and because the ova of plants before fructification are incapable of latent life. The eggs of the articulated animals are also incapable of remaining for any length of time in a state of latent life, although after fructification has taken place, but before there is any appearance of the embryo, they may remain, often for a long period, in a latent state. The same kind of latent life is apparent also in the impregnated egg of the higher amphibia and of birds, when the egg has reached a certain stage of its development. The long latent life of the human ovum Dr. Carus considers as one of the consequences of the high destiny of man, as affording time for important but imperceptible changes in the structure of the germ.—*Miller's Archiv. Jahrgang*, 1837. Heft iv.

THERAPEUTICS AND PATHOLOGY.

ON THE ACTION OF DIURETIC MEDICINES.

By Dr. C. G. Mitcherlich.

(From the Archiv. Fur Anatomie, Physiologie, von Dr. J. Muller, Jahrgang 1837. Heft 3.)

We trust the following copious analysis of an essay coming from so distinguished an authority as Dr. Mitcherlich, on so interesting and important a subject, will not be considered out of place in a journal devoted, as ours ever has been, to the advancement and improvement of PRACTICAL MEDICINE. If there be any one class of therapeutic agents more abused than another, in the hands of the mere routine practitioner, it is the class of diuretics. In treating the disease for which diuretic medicines are principally employed, namely dropsy, it has been and still is too much the practice to prescribe for a mere name, the pathological condition on which dropsy may depend, and the primary disease of which the dropsical effusion is but a symptom, being entirely left out of consideration. Did the physician, when prescribing diuretics, recollect that most of those articles of the materia medica which are specifically and Κατ' ἐξοχην classed under this head, are powerful local stimulants, and that it is by their revellent effects combined with the diuresis which they occasion, that they produce beneficial results, we should not so often see them prescribed in cases wherein the primary affection is seated in the kidneys, this affection being accompanied with inflammation or at least irritation of those organs, and consequent diminution of the urinary secretion; in which from an exclusive attention to the latter circumstance their use appears to the superficial observer to be indicated. In such cases their employment cannot fail to add to the mischief, the best diuretics obviously being the lancet and the antiphlogistic plan of treatment, which, by removing the cause of the diminished secretion, would tend indirectly to establish its perfect restoration. For a knowledge of the fact that dropsical effusion is frequently dependent on disease of the kidneys, and that the mark of this dependance is plainly afforded by the albuminous state of the urine, we are indebted to the pathological researches of Drs. Bright, Christison, Gregory and Osborne. We shall without further preamble present the Essay to our readers. The urinary secretion removes superfluous water and other materials, which are no longer of use in the animal economy, from the mass of blood, and, in connexion with those organs destined to similar functions, keeps up the healthy composition of the blood.

Should the urinary secretion be stopped, serious diseases are occasioned. The extirpation of both kidneys, according to the experiments of Prevost and Dumas, produces death before the tenth day, and the blood is then found to be thin, more fluid than natural, abounding in urea; serum also is effused into the cerebral cavities, the mucous membrane of the lungs is covered with mucus, and a quantity of thin fæces with a considerable quantity of bile is found in the intestinal canal. Should the suppression of the urinary secretion not take place suddenly, as in the experiments on animals just mentioned, the disease (ischuria renalis) in such case proceeds as follows; a urinous taste is produced in the mouth, the cutaneous, salivary, and intestinal secretions are increased, and emit a urinous smell; violent fever, and dyspnœa ensue, severe head-ache with dizziness, somnolency, delirium, convulsions, and apoplexy or suffocation, terminate life. On instituting a postmortem examination, there is then found a copious collection of water in the different cavities, and the odour of urine is also distinctly perceived. The non-secretion of the urine from the blood makes this latter fluid thin, produces increased secretion from the other secreting organs, is followed by effusion of serum into the cavities, and gives rise moreover to peculiar symptoms, which in all probability depend on the action of the constituents of the urine. Should the urinary secretion be gradually diminished, without becoming entirely suppressed, the results are of a different kind, and dropsy becomes established; this for instance takes place in degenerescence of the kidneys. Cases are on record in which no discharge of urine took place for months or even for years. Richardson mentions a case in which no urine was ever passed, and that without any inconvenience. Such observations however are to be considered extraordinary phenomena, and stand in need of confirmation.

The urine in a healthy individual has an acid re-action, a specific gravity of 1,005—1,03, at most of 1,025 (Prout), and should contain from 4 to 8 of solid constituents. Great varieties are found here, according as the urine of the morning or the evening be made the subject of examination, according as the condition be after copious drinking, or a long thirst, &c. The quantity of the urine evacuated daily by a healthy man varies considerably, and depends on the quantity of the fluids secreted by the skin, intestinal canal, &c. and on the quantity of the fluid and solid food consumed by the individual.

The ordinary constituents of the urine are: free uric acid, free lactic acid, lactate of ammonia, sulphate of potass and of soda, phosphate of soda, bi-phosphate of ammonia, chloride of sodium, muriate of ammonia, fluoride of calcium, phosphate of lime and magnesia, silica and urea, as also an indeterminate quantity of animal matter. Besides this, the urine also contains some mucus from the bladder.

These constituents are constantly found in the urine of an individual in the state of health, but not always in the same quantity, nor in the same relative proportions. The urine of children is poorer in urea and uric acid than that of adults. The cutaneous transpiration exercises very considerable influence on the urinary secretion, and the greater the quantity of fluid produced from the body by that means is, the more concentrated is the urine, and in the less quantity is it secreted. Accordingly we find a great difference in warm seasons and in winter with respect to the secretion of urine, as also in a moist and dry atmosphere. When the intestinal discharges are copious, a smaller quantity of urine is secreted. Nor can we, under such circumstances, raise the urinary secretion by means of medicine, as in the opposite case. Drink exercises still greater influence, as the urine flows so much the more abundantly, and becomes poorer in solid constituents, the more we drink. Water is carried away by the skin, &c. but in considerable quantities also by the kidneys. On this account the urine is more concentrated in the morning than in the evening, because less is drunk at night. Should the drink contain other materials in solution, these also frequently change the composition of the urine, as they are partly excreted through the kidneys, whilst some of them influence the formation of other materials. The food produces an important change in the urine, as many substances which are absorbed after digestion, are not converted into materials of nutrition, and are eliminated with the urine; they may have suffered a change during their circulation or not. Thus after digestion the urine is rich in urea, uric acid and salts.

The urine undergoes very important changes in disease both with respect to its quantity, and also with respect to its composition. These differences we have here noticed but very briefly. The quantity of the urine is very much increased in diabetes, at the same time that a great quantity of water is drunk. The urine diminishes very much and contains much solid constituents, if violent sweating or diarrhœa carry off a considerable quantity of fluids from the body, and if, as in dropsy, a great quantity of fluid be deposited into the cellular tissue or into the cavities of the body. The composition of the urine also varies very considerably in diseases, on which subject however, but few investigations have been made. Thus for instance in paralysis proceeding from the brain or spinal cord, we frequently find urine with an alkaline reaction; in diabetes mellitus it is found to contain sugar; in dropsy it often contains albumen; in gout and rheumatism uric acid and urate of ammonia in great quantity.

Most articles of the materia medica also change the urinary secretion in a very high degree, as well, with respect to quantity, as to its composition. They produce these changes partly by acting on other organs as it were antagonistically, as purgatives for example, partly by a direct action on the kidneys, as saline medicines, and partly by producing a change in the blood. Some diminish the urinary secretion, as purgatives, opium, &c., others increase it, and thence are called diuretics. The changes in the composition have been scarcely at all investigated, and we only know that many medicinal substances are again found in the urine, (salts, colouring matter, &c.) and that others change its odour (turpentine, asparagus, &c.)

Those medicinal substances which increase the quantity of the urine, yield thereby a urine which is deficient in solid constituents, and which accordingly has a less specific gravity than before. This is frequently anticipated, in as much as such urine generally continues clear on cooling, though this opinion is not confirmed by experiment. In diabetes the urine is often very clear, and yet not unfrequently it has a very great specific gravity. Accordingly the conclusion is by no means correct in every instance, that a clear urine is less concentrated, than a urine which, on cooling, yields a precipitate. The uric acid, for instance, which is very scantily soluble in water, falls to the bottom on the cooling of the urine, as soon as it is secreted from the blood in greater quantity, without the urine still [illegible] of a great specific gravity.

For the investigation of these facts I have collected some observations made on dropsical patients, and though several salts were present, I constantly found *that the specific gravity of the urine is diminished, if its quantity be increased.* In one case the urine was of the specific gravity 1,022, and on the following day, after 15 grains of carbonate of potass in solution were taken every three hours, its specific gravity fell to 1,01. The quantity of the urine secreted was at this time increased to about double. In the other cases, this difference, though less palpable, was still evident. We possess similar results with respect to other secretions: thus in the case of salivation by mercury, the specific gravity of the saliva is diminished to 1,0021—1,0038 (instead of 1,0062—1,0088). It is probable that every secretion, which becomes more copiously secreted than before, in consequence of the employment of a medicinal substance, also becomes poorer in solid constituents than before. The secretions of the intestinal mucous membrane are always rendered very watery after large doses of purgatives. The differences which the individual articles present, have not as yet been investigated. This increased secretion of urine with a small proportion of solid constituents by means of diuretics, and consequently of less specific gravity than the blood, is a fact, which, as I shall presently show, is of considerable importance. Investigations on the changes in the relative quantity of the constituents of the urine by diuretics we do not possess. In salivation after the use of mercury the relative quantity of the constituents of the saliva is essentially changed; the quantity of the salts has increased, while that of the salivary material has become less. On the appearance of new substances in the urine after the use of diuretics we possess no facts, only some few conjectures; thus, during the use of turpentine, we find the urine of a peculiar odour. Those medicinal substances, which are easily found in small quantity in solution with organic substances, are also found again in the urine, as the salts for instance. The other substances are not detected in the urine.

Diuretic medicines are very various. We have medicines, which in a healthy individual produce an increased urinary secretion by increasing the action of the kidneys, (diuretics properly so called). Other medicinal substances, on the contrary, produce their diuretic effect by removing the cause of the diminished urinary secretion, (diuretics in a therapeutical sense); the increased secretion in this case is only an adventitious result. Water itself increases the secretion of urine, as it must be constantly removed again through the skin, lungs, intestinal canal, and kidneys.

I. DIURETICS WHOSE PHYSIOLOGICAL ACTION IS TO PRODUCE AN INCREASED SECRETION OF URINE.

These occasion a more copious secretion of urine than existed previously, if there be a sufficient quantity of fluid in the body. If the kidneys be the seat of irritation or inflammation, these increase it, and inflammation is even occasioned by violent diuretics.

To these belong:—

1. *Acrid Diuretics*—which act directly on the kidneys. Inflammation of the kidneys is increased by them. We observe, in many instances, strangury and the secretion of bloody urine produced, in some cases, inflammation of the bladder and of the kidneys, if these medicines be persevered in and given in large doses. Those substances produce inflammation externally only in those parts to which they are directly applied, but no where else. To these belong cantharides, squill root, colchicum seeds and root, mustard seeds, Mezereon bark, &c.

2. *Stimulating Diuretics.* These excite all the functions more or less. The acceleration of the circulation is here of great influence, because in a given time a greater quantity of blood is sent to the kidneys than before. But stimulating medicines act directly also on the kidneys, because small doses of them, which are followed by an almost imperceptible acceleration of the circulation, manifestly increase an inflammation of the kidneys. This excitement is the more violent, the more closely the exciting substances approximate to acrid substances, as for instance, turpentine. To this class belong alcohol, ether, the stimulating ethe-

real oils and resins, balsams, &c., and consequently all medicinal substances which contain these ingredients as active principles.

3. *Saline and Alkaline Diuretics.* These substances act at one time by changing the mass of blood, as I shall show presently, and secondly also by directly exciting the kidneys. No inflammation is excited by these, but one already existing is exasperated by them. They act here in the same way as they act on the first place of contact (the stomach, wounds, &c.) where they increase the secretion, without producing similar phenomena in the course of the circulation, whilst at the same time they produce even an antiphlogistic effect. To these belong potass and soda, and their combinations with strong and weak acids, &c.

These diuretic substances act directly on the kidneys, after being absorbed and taken into the mass of blood. The proofs are as follow:

A. The neutral salts and alkaline substances we can find again in the urine. The acid is frequently changed, but the base continues. After the use of alkaline substances the urine very soon becomes alkaline. We find that a given quantity of urine contains much more of these salts than an equal quantity of blood. The acrid and stimulating substances have not yet been detected in the urine by chemical examination, for the peculiar odour of the urine occasioned by the use of oil of turpentine is no proof of the presence of the latter, but merely points out a change in the urine.

B. The degree of local action bears no proportion to the increase of the diuresis. After large doses of acrid medicines vomiting and purging take place, and even inflammation may follow: the local action is accordingly very considerable, but the medicinal substance is soon evacuated again, and therefore cannot be absorbed; consequently either no increased diuresis follows, or at least a diuresis very slightly increased. If, on the contrary, the substance be administered in doses so regulated, that its local action is not too violent, and that it continues for a sufficient length of time in contact with the intestinal mucous membrane, so as to become absorbed, it then acts most violently on the kidneys. The same may be said of stimulating, saline, and alkaline diuretics, which act most powerfully, when the local action is not too great. Accordingly we cannot explain the diuretic action sympathetically through local irritation of the intestinal canal.

C. The time after which the increased diuresis commences corresponds with the time in which absorption can follow. All sympathetic phenomena are observed instantaneously; and hence, if these substances acted in this way, the increased diuresis should also take place immediately. But this does not follow till a later period; often not till after the lapse of several hours, in which time absorption may take place.

D. The same series of changes which these substances produce in the intestinal canal on wounds, &c., we also find produced in the kidneys, if they be given in a sufficient, but not in too large a quantity. Cantharides produce inflammation on the epidermis in wounds, in the stomach, &c., and by the continued administration of large doses of this substance, inflammation of the bladder and kidneys also takes place. The stimulating diuretic substances increase inflammation in the stomach, &c., and exasperate inflammation in the kidneys. The salts which can be detected in the urine by chemical examination act in a manner so as to increase the inflammation in the first place of contact, and after absorption in the kidneys, so as to diminish, on the contrary, the inflammation, which makes its appearance in other organs.

The principle on which these substances increase the urinary secretion, and the manner in which this effect is brought about, we know not. We only know that the salts are secreted with the urine in a more concentrated form than they exist in the blood, and that the direct action of the other substances on the kidneys can be shown with the greatest probability. This is what is called a specific action.

In morbid deposition of serum in the meshes of the cellular tissue, or in the different cavities of the body, as in dropsy, absorption of the serum, and the cure of the disease, frequently take place simultaneously with increased diuresis after the employment of these diuretic substances. The diseases which depend on an acrimony of the blood are often relieved and cured by these substances; to this class of diseases may be referred cutaneous eruptions, &c.

The cure of dropsy by these substances has been generally accounted for in such a way, as that a specific action on the lymphatic vessels has been assigned to them, and this action was derived from a power inherent in them of promoting absorption. No substance has been proved to possess such a specific action on these vessels; but the increase of absorption is probably owing to a change effected in the blood.

According to our present knowledge of absorption, and considering all the phenomena presented by the increased diuresis through the medium of the substances now mentioned, the absorption of the serum in dropsies, and the cure of these diseases may be explained in the following manner. The first momentum is the stimulation of the kidneys, and the secretion of a urine deficient in solid constituents. If we now compare the composition and specific gravity of this urine with those of the blood, the blood must necessarily become richer in solid constituents, inasmuch as it possesses much more of these ingredients than the urine secreted. But in consequence of this, the blood has a greater affinity for fluids than before, just as we see that violent thirst is occasioned if much water be abstracted from the body by excessive cutaneous perspiration. In the same manner absorption is caused here by the increased attraction of the blood for serum. A similar physical phenomenon is observed, if a glass tube, open at both ends, be closed at one end with a membrane, and be half-filled with a concentrated solution of a salt, and be immersed to this depth in pure water, the concentrated solution attracts the water through the membrane, and rises in the glass tube.

For the cure of those diseases by means of diuretics, which are said to depend on acrimony, some have endeavoured to account by ascribing to these medicines a power of producing a change in the blood. But this is not proved in such a way as to enable us to explain any thing with certainty. It is much more probable that these acrimonious admixtures with the blood, if they really are the occasion of these diseases, are removed along with the urine, in consequence of the action of the kidneys being called forth.

Analogy is also in favour of this explanation, as these same diseases are cured by cathartics, which produce an irritation of the intestinal canal, and thereby an increased secretion of its mucous membrane. In the same manner as diuretics increase the secretion of the kidneys, discharges of fluid take place in the latter case. Purgatives act neither sympathetically, nor directly on the lymphatic vessels, but by exciting the secretion of the intestinal canal, and separating a watery fluid from the blood.

II. DIURETICS WHOSE THERAPEUTIC ACTION OCCASIONS AN INCREASED SECRETION OF URINE.

The diuretic means which call forth an increased secretion of urine in disease are very various. Every means which can remove the cause of a diminished urinary secretion belongs to this head.

The abstraction of blood by venæsection, leeches, &c., bring about a more copious secretion of urine, if an inflammation of the kidneys be present, if inflammation of other parts, or an inflammatory fever be followed by a scanty secretion of urine. By this means the inflammation, which was the cause of the diminished secretion of urine, is put a stop to.

Neutral salts, and alkalies also, produce a more copious secretion of urine. In the case of inflammation, the cause of the diminished diuresis is checked by these means, if the inflammation has not its seat in the intestinal canal and kidneys. In impeded circulation occasioned by intumescence, or other morbid states of the liver, spleen, and other organs, dropsy and a diminished secretion of the urine occur. Many of these causes of impeded circulation are curable by the means just mentioned, and with the removal of the cause the serum is again taken up by the vessels. They here act as resolvents.

Temperant remedies (acida vegetabilia) act diuretically in inflammations, by their mitigating the symptoms of inflammation.

Emollients obviously occasion an increased diuresis in inflammation of the kidneys. They mitigate the inflammation, and thereby increase the secretion of urine.

Tonics also increase diuresis. In consequence of an atony of the solids, which atony coincides more or less with a blood poor in solid constituents, dropsy takes place. This dropsy is removed by the digestive function being strengthened so as to form more blood, and blood of a good quality (by bitters, bark, iron, &c.), and so as to increase the tone of the tissues (by iron, bark, and other astringents). By these means the cause of the dropsy, viz. the defective formation of blood and the atony of the tissues, is removed.

Digitalis possesses the peculiar property of lessening the heart's action, of bringing down the pulse from 80 to 60 or 50, &c., and of diminishing the strength of the pulse, whereby it sets the kidneys to work simultaneously as an active remedy. Accordingly, if the dropsy is a consequence of an enlargement or hypertrophy of the left ventricle, digitalis mitigates the violent action of the heart thereby produced, and the dropsy disappears for some time; but this does not cure the heart disease, and the dropsy accordingly returns. By lessening the heart's action, retarding the circulation, and by directly increasing the urinary secretion, digitalis is also useful in inflammatory dropsy, more especially if exudation impends or has already occurred, and the inflammation be first broken down by venæsection, &c.

The acrid (scharfen) medicines are diuretic, if the diminished urinary secretion is a consequence of torpor of the kidneys. Whether it results from paralysis depending on the brain and spinal cord, can only be conjectured, but not known with certainty.

Stimulating remedies increase the diminished urinary secretion in the same case, and especially in deficient activity of the circulation. The dropsy is seldom cured by these means alone, as in torpor of the kidneys acrid remedies are to be preferred; and dropsy very seldom occurs in consequence of the heart's inaction, without organic disease. But these remedies are of the utmost importance when the morbid matter exists in the blood, keeps up the disease, and is not eliminated. They accelerate the circulation, direct more blood to the kidneys in a given time, to the skin also, &c., and call into action at the same time the functions of those organs. Accordingly, copious secretions often follow the employment of these means, crises take place, and stimulants may therefore in such cases become tonic remedies, &c., by removing the cause which interferes with the action of the kidneys.

Antispasmodics are just as various as the causes of spasm. Almost all medicines may act as antispasmodics under certain circumstances, but some preëminently so, in primary spasmodic diseases of an entirely different kind, as narcotics, for instance, and those with which we are able to produce a powerful counter-irritation. If the diminished urinary secretion be a consequence of spasm, the antispasmodic medicine is, in a therapeutical point of view, a diuretic. Thus we often see an increased diuresis occur in consequence of an emetic, and that either in consequence of the general counter-irritation, or of the general shock and excitement given to the system by this means. In this way opium, which in healthy persons diminishes the urinary secretion, may, by removing spasm, call forth a more copious secretion of urine.

If from this point of view we consider the action of those remedies which are followed by an increased urinary secretion in dropsy, we must next turn our attention to the primary affection, which is followed by dropsy as a symptom in the progress of the disease. If we connect both these series of facts with our present experience at the sick bed, we may then consider the following points as established.

The dropsy which is a consequence of a so-called inactivity of kidneys, or of a diminished secretion from the skin, &c., is diminished or cured by those remedies which directly excite the action of the kidneys. In the first case, the cause of the disease is removed; in the latter, the increased activity in the kidneys takes on the function of the skin, &c., and there then remains for us the problem of regulating the function of the skin, which is more easily accomplished, if the accumulation of water is first stopped.

The dropsy, which is a consequence of a structural change in the kidneys, is but seldom cured. The diagnosis is frequently uncertain, and, above all, the kind of structural change for the most part continues unknown to us till death.

Medullary sarcoma and similar organic diseases of the kidneys are at present still incurable. The structural change, which Bright, and subsequently Gregory, Christison and Osborne, have detected in the kidneys, appears to be increased by acrid, stimulating and saline diuretics, and to require partly the abstraction of blood, partly purgatives, as well as careful attention to the cutaneous transpiration.

The dropsy which is a consequence of an impeded circulation, is cured by removing the cause of the latter. A tumor (Balggeschwiulst), &c., may create œdema by pressure on the veins, and in such a case the œdema disappears with the removal of the tumor. Tumors of the liver, spleen, &c., depositions in these organs, and degenerations of them, impede the return of the blood, and in this way may occasion dropsy. If these depositions and swellings be still resolvable, the dropsy may be removed by neutral salts and alkaline remedies, which act on these organs by changing the mass of blood. What are called obstructions in the liver, spleen, in the portal system, and in the lymphatic vessels, are often removed by these resolvents, often cured by promoting the secretions of the liver and capillary vessels of the intestinal mucous membrane (cathartics in small and large doses). But incurable degenerations often occasion the dropsy by impeding the return of the blood, and in such a case no remedy cures the dropsy.

The dropsy which is the consequence of inflammation, as hydrothorax after pleuritis, is removed by those means which mitigate or remove inflammation, whether by a change in the composition of the blood, or by retarding the circulation, and which have a solvent action on the effusion, if it is no longer fluid, and at the same time effect an increased diuresis. To these belong bloodletting; the neutral salts, and alkaline remedies, which diminish inflammation by changing the blood, and at the same time act on the exsudation. Mascagni showed that carbonate of potass dissolves the solid exsudation in pleuritis, and accordingly this remedy is employed with the best results when auscultation and percussion have detected an effusion into the thoracic cavity. To this class also belongs digitalis, in as far as it retards the circulation and excites the action of the kidneys.

The dropsy which is a consequence of atony depends on a deficient formation of blood, and insufficient contractility of the tissues, which are not properly nourished. In such a case the digestive powers are to be strengthened by bitters, quinine, iron, &c., and from mere bitters the change may be made to astringent remedies. Herewith the removal of the cause, the dropsy, which is but a symptom, disappears.

The dropsy which is a consequence of dilatation and hypertrophy of the left ventricle, is often removed for a considerable time, but again returns. By bloodletting, should plethora exist at the same time, a temporary improvement is effected, and by the use of digitalis, which diminishes the abnormal energy of the heart's action, the dropsy, if it have not gone too far, is often removed for some time, but returns, if the effect of the remedy has ceased for any length of time. The cause of the dropsy is in this case suspended for a long time by diminishing the heart's action, but the hypertrophy is not cured thereby.

If the cause of the dropsy, or rather the primary disease, is not to be detected, several modes of treatment are employed, according to the view which the physician adopts in determining the casual relation.

If the case be one of hydrops saccatus, those remedies are seldom of use, and a rational line of treatment verified by experience has not been yet established.

If the effusion (as, for instance, into the pleura) be no longer fluid and the serous membrane be at the same time very much affected, these means are sometimes of use after paracentesis, but seldom effect a perfect cure. Saline and alkaline remedies hitherto proved most serviceable in these cases, and that in the two-fold relation, as diuretics the more limited sense of the word, and as resolvents.—*Med. Chir. Rev.*

A TREATISE ON THE INFLUENZA OF 1837, AS OBSERVED AT BIRMINGHAM. By *Peyton Blakiston*, M. A., Med. Lic. Cantab. 8vo. pp. 60. Birmingham, October, 1837.

The author attended about 200 cases, chiefly belonging to a public institution, and has here given an analytical or clinical report of 100. The labour of observing and recording them must have been very considerable, perhaps more than was necessary, for less than half the number would have illustrated the epidemic quite as well as the centenary of cases. Dr. B. has not "travelled from his record" by adverting to the peculiarities of preceding or accompanying seasons, nor by instituting comparisons between the epidemic of 1817 and those of other years. These tasks he leaves to others. The author throws these cases into three sections; first, containing cases as types of the disease in persons previously healthy; secondly, cases of influenza modified by pre-existing disease; third, a general analysis of symptoms and treatment. It is only from the third section that we shall extract any materials for this short article.

1. *Age.*—Although no age was exempt from the epidemic, yet the largest proportion of cases occurred between 20 and 50 years of age—that is, in the prime of life. This coincides with the experience of Louis and Andral in respect of fevers generally.

2. *Diet* seemed to have nothing to do with the predisposing causes.

3. *Locality.*—By far the greater number of patients had been resident in Birmingham for years. The houses of the patients were, generally, wholesome and well ventilated. The site of the town is elevated, and its surface very irregular, so that it is well drained. It is, however, cold, and bronchial irritation is prevalent. Our author could trace no connexion between the locality and the disease.

4. *Habits.*—Thirty cases occurred among the wealthier classes, and 70 among the humbler, so that people of all intermediate ranks were included. The author was not able to discover any modification of the disease from variety of habit, manners, or avocations.

5. *Contagion.*—On this point our author has not been able to make up his mind, and therefore "has no opinion to offer on the subject."

STATE OF THE DIFFERENT ORGANS.

As no dissections were obtained, Dr. B. cannot, of course, offer any pathological phenomena, excepting such as may be inferred from symptomatology. There was no fatal case, except where the influenza was complicated with some other disease.

Pharynx.—In a large majority of cases, there was redness of the fauces and tonsils. *Tongue.* In some, even of those who died, the tongue presented no abnormal appearance. In 45 cases, however, it was covered with white, in 39 with a soft yellow fur. *Nausea or vomiting* occurred in almost every case. In many, bile was ejected. *Loss of appetite* was almost universal. In 60 cases out of 100 there was no *thirst.* In the others, it existed more or less. In 70 cases the bowels were confined. In 26 cases the bowels were natural. In four they were disordered. The *urine*, in a great many cases, was thick, as in common catarrh. In respect to the action and sounds of the *heart*, none were abnormal unless they had been so previously. The *pulse*, in a great majority of cases, was small, feeble, and sharp at the onset—soon becoming soft, and continuing feeble for a long time. In the majority of cases it did not exceed 100 in the minute. When the pulse was above 80, the skin was dry and more or less hot. In some weakly patients there was a constant sensation of chilliness. In 40 cases there was no increase of temperature. *Cough* existed in all cases, showing itself from the first till the seventh day. In all cases it was violent for at least two days; in many cases it was prolonged for some weeks, assuming a convulsive character. *Expectoration.* When this became copious and easy, the pain and uneasiness of the cough were much diminished. When the patients were in health previously to the attack, the expectoration was clear mucus; when the mucous râle existed, it was very viscous. In those who were the subjects of chronic catarrh, the expectoration was muco-purulent. Most patients felt a dull pain under the sternum upon coughing, and many complained of constriction across the chest. The chest sounded clear on percussion, in every case where no pneumonia or asthma was combined with the influenza. Respiration was also clear and vesicular. In 75 cases, no râle was audible; in three cases, slightly sibilous and sonorous; in 18 cases, these râles were well-marked. There were symptoms of derangement of the nervous system in all cases, varying from a slight headache, lassitude, giddiness, &c., to excessive headache, great prostration of strength, and occasional delirium.

Treatment.—In simple cases the treatment was very inert. The symptoms were watched, and the functional derangements of each organ ameliorated by mild means. When congestion or inflammatory action of the mucous membrane of the lungs was rendered obvious, blisters, sinapisms, or even leeches, were employed: as also the ætherial tincture of lobelia inflata combined with ipecacuan wine, and occasionally with soda.

The following are the conclusions to which our author comes from a careful statistical analysis of 100 cases, besides a general observation of many others.

"1. The influenza, as observed at Birmingham, is an affection of the nervous system, with its concomitant derangements in the organs of digestion, circulation, &c., commonly known under the name of *nervous fever;* accompanied, *throughout its whole course*, by irritation of the pulmonary mucous membrane.

2. This irritation, not unfrequently, amounted to congestion, and even to inflammation.

3. The influenza was modified by pre-existing disease, more particularly by chronic bronchitis, the subjects of which were rendered liable to the acute form of that disease.

4. Neither locality, previous habits, or diet, acted as predisposing causes.

5. In simple, uncomplicated cases, mild treatment alone was sufficient.

6. When bronchitis was present, counter-irritation, and large doses of ætherial tincture of lobelia, repeated at short intervals, seemed useful.

7. Venesection was always counter-indicated.

8. It was often necessary to have recourse to diffusible stimulants, at the commencement of the complaint, and to administer tonic medicines in an early stage of it.

9. It only proved fatal in those cases where the persons it attacked had been enfeebled by old age or chronic disease."

As there is scarcely a disease or disorder the causes of which do not make their first impression on the *nervous* system, so Dr. Blakiston may be justified in terming the epidemic influenza a *nervous* disease. Indeed it must be acknowledged that the epidemic visitations of this malady have always been remarkably characterized by depression and derangement of the nervous system, as contradistinguished from purely inflammatory affections of the respiratory apparatus. We think that our author is entitled to the thanks of his brethren for this accurate and minute statistical analysis of the various phenomena exhibited in the different organs and functions during the course of influenza.—*Med. Chir. Rev.*

ON THE ACTION OF STRYCHNIA ON THE NERVOUS SYSTEM.

By Dr. H. STANNIUS.

In the following experiments, the nitrate of strychnia was preferred, on account of its greater solubility, to the other preparations of that alcaloid. Dr. Stannius introduced, beneath the integuments of strong healthy frogs, a few drops of a concentrated solution of the nitrate, and the following effects were generally observed: The animal continued to comport itself as usual for a short time, but, in from five to fifteen minutes, it became more quiet, taking at intervals short leaps, till one tremendous bound succeeded, followed instantly by the most energetic tetanic convulsions, which continued without interruption for about a minute. They then generally ceased; but the slightest shaking of the table, the least touch, or even the vibration of the air caused by speaking, sufficed to reproduce them instantly. This acute sensibility gradually diminished; which consequence Dr. Stannius ascribed to the absorption of a larger quantity of the poison. In analyzing these effects, we observe, firstly, an affection of the voluntary muscles; and, secondly, a greatly increased susceptibility to all external impressions. These phenomena may be owing, firstly, to the action of the poison on the brain; secondly, to its action on the extremities of the centripetal nerves, which, by reflecting it upon the brain and spinal marrow, might produce the anomalous phenomena; or, lastly, it may be owing to the direct action of the poison on the spinal marrow. The first supposition is negatived by experiments, which show that the destruction of the brain does not prevent the occurrence of tetanic convulsions after application of the poison, and by others in which the spinal cord was divided above the origin of the nerves of the posterior extremities, and in which convulsions nevertheless ensued, both in the anterior and posterior half of the body. Secondly, does strychnia act primarily upon the extremities of the nerves through the instrumentality of the blood?

The following experiments may be regarded as answering this question in the negative: the spinal column of a frog was divided immediately above the origin of the nerves of the posterior extremities; the posterior portion of the column was then carefully separated from the soft parts, and the blood-vessels supplying it cut, so as to leave it in connexion with the other parts of the body solely through the nerves of the posterior extremities. These nerves were than freed from all adhesion to the adjacent vessels, muscles, &c. in that part of their course which lies between the spinal column and thighs; so that in this manner the posterior portion of the spinal marrow, and, to some extent, the nerves arising from it, were completely isolated from the blood-vessels. The blood-vessels and nerves retained their normal situation in the extremities, in which the circulation continued to be carried on, and mechanical irritation of the toes of the posterior extremities, by inducing the animal to retract them, showed that the functions of the posterior half of the medulla continued to be performed. If the poison, therefore, act upon the extremities of the nerves, and its action be through them reflected upon the spinal cord, we should still expect tetanic convulsions both in the anterior and posterior half of the body. But this is not the case; the posterior extremities are not convulsed, although they still contract on the application of mechanical irritation. We thus arrive, by negative proof, at the conclusion that strychnia acts primarily upon the spinal marrow, and that from it result both the convulsions and increased excitability.

Here the question arises, Do these convulsions suppose also an alteration in the centripetal nerves, or is the excitability of the spinal marrow increased to such an extent that, without any change in these nerves, common impressions suffice to produce the most fearful spasmodic paroxysms? To decide this question the following experiments were instituted: the spinal canal of a frog was laid open, and the posterior roots of the nerves of the posterior extremities cut; the animal was then poisoned, and the usual phenomena appeared: the posterior extremities were fully convulsed, but mechanical irritation had no effect upon them, and the convulsions in the posterior extremities ceased as soon as the cord was divided above the origin of their nerves. Again: the spinal canal of a frog was laid open, and the posterior roots of the nerves of the posterior extremities cut across. The cord was then divided above the origin of these nerves, and the animal poisoned. No convulsions followed in the posterior extremities, nor did irritation of the spinal ends of the cut posterior roots produce them. These experiments were repeated several times with like results; and hence Dr. Stannius infers that the centripetal nerves are necessary for the appearance of tetanic convulsions, and that increased susceptibility to external impressions is not confined to the spinal marrow; as, in that case, irritation of the spinal ends of the cut posterior roots, or of the posterior aspect of the spinal cord itself, would give rise to the peculiar tetanic convulsions. We know, from the above experiments, that the poison is devoid of influence upon the extremities of the centripetal nerves, and we thus necessarily arrive at the conclusion that the centripetal nerves receive from the spinal cord an increase of their excitability; and that, thus charged, they react upon the medulla and occasion the peculiar convulsions.

In experiments with strychnia, the blood has generally been regarded as the vehicle of the poison. This opinion derives confirmation from the facts that some time is required after the introduction of the poison beneath the integument for its action to become apparent, and that no effect follows its immediate application to the spinal cord or nerves. Dr. Stannius was unable to recognize any alteration in the appearance of the blood of poisoned frogs by means of the microscope, and he disproved the opinion that the act of respiration is necessary to impart to blood already charged with the poison, the power of acting upon the central organs of the nervous systems, by showing that the same symptoms occurred in frogs which had previously been deprived of their lungs.

Professor Müller has lately called attention to the fact, that a solution of the aqueous extract of opium is possessed of a purely local action upon nerves with which it is brought in contact. To ascertain in how far strychnia possesses the same property, Dr. Stannius prepared three posterior extremities of frogs. The extremities of the nerves of one were steeped in a solution of opium; those of a second in a concentrated solution of strychnia; and those of the third in pure water. The nerves of the first showed no susceptibility of mechanical irritation beyond a quarter of an hour; those of the second retained their excitability for an hour; and those of the third, for several hours. The stimulus of galvanism continued to affect the extremities of the nerves of the first for three-quarters of an hour; those of the second for an hour and a half; whilst those of the third, at the end of two hours and a half, still retained some excitability.—*Müller's Archiv.* Heft ii. 1837. *From Brit. & For. Med. Rev.*

OF THE SUCCESSFUL EMPLOYMENT OF COLCHICUM IN TETANUS, IN HAYTI.

By William G. Smith, m.d., of Port au Prince.

In Hayti, as in all warm climates, tetanus prevails to a considerable extent, but it would seem most confined to the natives, as I have never known a case to occur in an European, or any stranger whatever. It also appears, that persons in this country, from the age of five years to thirty, or thirty-five, are most predisposed to attacks of this disease. In the course of little more than two years and a half, nine cases of tetanus have fallen under my observation, and the greater number of these were under my own care. Women do not seem to be so susceptible of tetanus in any of its varieties as men: of the nine cases, only one having occurred in a female. Of the nine cases, two were traumatic, and were induced by very slight wounds, the remaining seven were idiopathic, no direct cause being present.

Traumatic Trismus . . .	2 males, under the age of 20, 1 died, 1 cured.
Idiopathic Opisthotonos	3 males, under the age of 30, 1 died, 2 cured. 1 female, under the age of 40, died. 2 males, under the age of 25, cured.
Idiopathic Pleurosthotonos	1 male, aged 15, died.

Total, 9: cured, 5; deaths, 4.

The last four cases of tetanus which have come under my care, were treated with the Colchicum Autumnale, and three out of the four recovered. The following is the general course I pursue, in the treatment of the disease: on being called to a case of tetanus my attention is first turned to the actual state of the bowels; constipation in this disease is at least a grave symptom, and should be relieved by injections. I prefer some emollient fluid for this purpose; because I believe that in almost all cases, there is, conjoined with costiveness, some degree of intestinal irritation. I commenced by administering an enema of ℔j. decoction of either flaxseed or the okra, (Ketmia gombo,) cum. ol. ricini. ℥iij. or ℥iv. for an adult. After this, fifty or sixty leeches are applied to the spine, from the neck to the sacrum; in my particular practice, I have made choice of the scarificators and cupping-glasses, and the result has been most satisfactory. When the muscles of the jaws and neck are affected, as is most usually the case, leeches are also applied to the mastoid processes; the moment the cups or leeches, whichever may have been used, are removed, cloths wrung out of a strong solution of the muriate of ammonia are constantly applied to the whole of the vertebral column, the back and neck. Internally I administer the vinous tinct. of colchicum, commencing with ʒss.; the dose is increased every half-hour, and repeated until emesis or catharsis has been produced. As soon as one or other of these effects is obtained, this remedy is to be discontinued; if there afterwards occur any colic or griping, with exhaustion, as in all probability there will, I am in the habit of giving the spt. mindereri ℥ss. every hour, with the addition of one-fourth of a grain of acetate of morphine, in solution. If the surface be cold, and there be symptoms of collapse, warm applications are made to the extremities and the axilla; and the muriated solution is discontinued. The seeds of the colchicum appear more permanent in effect than the bulb. I accordingly make a tincture as follows:—℞. Sem. colch. sicc. ℥ij.; Vin. albi. hisp. lbj. Infund. &c.

All the cases of tetanus which have fallen under my care have been, with two exceptions, treated as above stated, with a very happy result. The exceptions were the first two cases I treated in this island, and in which I employed opium, general venesection, terebinth, &c.; the patients were put in a warm bath, but on being taken out of the bath, the spasms became more alarming, the limbs more rigid, and in one instance, death immediately followed. I shall never again treat tetanus, while in the West Indies, as recommended in the books. I was first induced to employ the colchicum for the cure of tetanus from the accounts given by Mr. Haden, of London, of its good effects in chronic rheumatism, and inflammatory diseases, as well as from previous experience, while resident Physician at the House of Refuge in New York. Dr. Ives, of that city, frequently employed the tincture in rheumatism. The effect I invariably observed it to produce led me to believe that the colchicum possessed qualities both as diaphoretic, diuretic, and actively cathartic, besides being antispasmodic and anodyne. I am now certain that in tetanus, it acts in a manner altogether peculiar. In tetanus there is obstinate constipation, violent spasms, muscular rigidity, with pain, often retention or suppression of urine. Now the colchicum, when genuine, appears to combine in itself sufficient qualities to control several of these symptoms at once. It, however, does not invariably promote vomiting; this may depend on its genuineness, but it almost invariably acts upon the kidneys, the skin, and the bowels.—*The Jamaica Physical Journal, for June,* 1836. *From Idem.*

TETANUS CURED BY ACETATE OF MORPHINE, APPLIED ENDERMICALLY. By Dr. Henry.

This was the case of a young man, over whom passed the wheel of a carriage, by which two ribs and several of the metacarpal bones of the right hand were fractured, with great laceration of the soft parts. He was bled, and the fractured parts replaced. Until the fifteenth day, all went on favourably, when there suddenly occurred the symptoms of tetanus; fixed look, stupor, trismus, contraction of the muscles of the neck and superior part of the thorax, &c. A grain and a half of acetate of morphine was spread upon the surface of the wound, and an ounce of syrup of morphine administered internally, by means of a tube passed through the interval left by a tooth which had been extracted. The symptoms ceased during the following day, when the same remedies were employed; the next day, they were omitted, when the symptoms returned more formidably than before: the patient sitting upon his bed with his head almost between his legs, and being unable to lift it, (Emprosthotonos.) An abraded surface was made by ammonia, and two grains of acetate of morphine were applied to it; the application was continued, and the patient recovered.—*Bulletin de l' Académie Royale de Médecine.* No. 2. 1836. *From Idem.*

ON THE EFFICACY OF SUGAR OF LEAD IN CASES OF FEVER WITH ULCERS OF THE INTESTINES. By Professor Nasse, of Bonn.

[The treatment recommended in the following article has recently acquired a fresh interest from the recommendation of the same remedy in the Asiatic cholera.]

A fever has prevailed for some time at Bonn, attended by a peculiar appearance of the tongue; pain in the abdomen, especially on the right side, upon pressure; nervous symptoms, and a particular state of the pulse: it is also accompanied by diarrhœa, and, on examining those who had died of it, the termination of the small and the commencement of the large intestines have been found in a degenerated state. During the inflammatory stage of the disease, Dr. Nasse applied cupping-glasses to the abdomen, and in most cases more than once; in a few cases, when the pulse was hard, he bled from the arm; and in every case applied blisters to the abdomen. As soon as the diarrhœa made its appearance, sugar of lead was prescribed, generally without being combined with opium, and was continued until the fæces reassumed their natural appearance, and until the abdomen ceased to be pained by pressure. Dr. L. Jung, in his work *De Dothienenteritide ejusque plumbo acetico sanandi ratione*, had already described the admirable operation of this medicine. Dr. Nasse gives a similar testimony to its value, and states that, in his own practice, it has, in his opinion, saved several lives, which would have been lost without it. Nineteen cases of the above fever were treated with sugar of lead; five in children, and fourteen in adults. Of these eighteen recovered. The lead was not administered till the fifth, eighth, or tenth day of the complaint, or even later, when cerebral congestion rendered necessary the application of leeches. The dose was one-fourth, one-third, and half a grain, from three to six times daily. Generally, two grains were sufficient to put a stop to the diarrhœa; but, in five cases four grains were necessary. One of the patients, who had forty stools in twenty-four hours, and who suffered from tenesmus, took in all eight grains, at first without, and afterwards combined with opium, and at last with starch clysters. The young man, who died, took altogether ten grains: in his case, the diarrhœa yielded to it in a great degree, but the abdominal irritability and the tympanites were such as to induce its fatal termination. As soon as further doses of lead seemed unnecessary, a weak infusion of ipecacuanha was given. In some of the cases which recovered there had been petechiæ; and in some, too, the evacuations had been bloody; but the lead had been administered all the same. Opium was not generally ordered, on account of its effect upon the head. In eight cases, on account of weakness and fainting fits, the liq. ammon. carb. was had recourse to; in one, that of a child, quinine was given before the lead, but, the fever increasing, and blood passing off with the stools, the latter was prescribed, and with the best effect.—*Med. Zeitung v. Ver. für Heilkunde in Pr.* 1836. No. 23. —*From Idem.*

ON THE TREATMENT OF ERYSIPELAS BY RAW COTTON.

BY M. REYNAUD.

Considerable experience appears to have established the utility of cotton in the treatment of burns. So convinced is the author of its value, that he employs it in all cases, in whatever degree they may exist: for he has found it to calm the pain instantaneously both in superficial burns of the skin and in those which occupy the whole thickness of the cutis, as well as to act beneficially in the subsequent process of the cure. Being struck with the efficacy of cotton in burns, and noticing the analogy which there exists between the inflammation of the skin produced by an incandescent body and that of erysipelas, M. Reynaud employed cotton in the latter disease, and the constantly beneficial results which followed its use led him to permit their publication.

The local treatment of erysipelas is, as M. Reynaud observes, very various, and based on no fixed principles. Some of the means employed give rise to considerable pain, others are, on various accounts, objectionable. In their place, M. Reynaud would substitute cotton, as a substance soft to the touch, of a moderate price, always at hand, easy to apply and unattended with pain in its application, and the action of which is so certain that the surgeon may at will extinguish or again excite the inflammation, by continuing or discontinuing the application. In erysipelas, as in burns, the cotton calms pain as it were by a charm; a mild and moist warmth takes the place of the itching, the formication, the sharp and biting heat which so much increase the pain; the swelling gradually diminishes, the redness disappears, the skin becomes flaccid and wrinkled, and without becoming covered with those furfuraceous scales which characterise the termination of erysipelas, and which sometimes continue during a long period. All that separates are a few slight layers of epidermis, and this is speedily effected. The general excitement ceases with the local phenomena, the fever diminishes, and in simple cases the organic functions return to their normal state, without the necessity of any other treatment. A circumstance of great advantage in the use of cotton is, that it is equally fitted for, and produces analogous effects, in all forms of erysipelas, whether idiopathic or traumatic, whatever may be its situation, on the face, body, or limbs; whatever may be the depth of the tissues which are affected; for in the cases which are collected, are some of phlegmonous erysipelas greatly amended and others entirely arrested by the simple application of cotton. The result, M. Reynaud would thus explain,—that the cotton acts by exciting in the diseased part a moderate warmth, a sort of vapour bath which keeps up a constantly equable temperature, a proper degree of humidity, by keeping the diseased part from contact with air and light, two powerful excitants of the cutaneous system. Cotton does not suffice in all cases; no more than other remedies does it enable the surgeon to dispense with general means, but it lends to these a great assistance: it hastens the resolution, and when this termination cannot take place, it still serves to limit the inflammation, and to arrest its progress.

The method of applying the cotton is very simple. Raw cotton which is well carded must be selected, in order that it may be free from all foreign substances which it sometimes contains. A layer sufficiently thick to protect the diseased part from the light and air must then be applied, taking care always that the cotton extends some inches beyond the limits of the inflammation. A compress and a few turns of a bandage will keep the cotton applied. A linen mask is well fitted for the face. The cotton should be removed every twenty-four hours to judge of its effects, or, if there is no contraindication, it may be allowed to remain during the whole course of the treatment. If the cotton should adhere too strongly to the skin, in a case where there is slight exudation, it may be removed by applying over it an emollient poultice. The author has added to the previous remarks several cases of various forms of erysipelas treated with cotton; to which it is unnecessary to call the attention, otherwise than to state that seven are cases of simple erysipelas of the face and extremities; that one is of traumatic erysipelas; the ninth of erysipelas complicated with a miliary eruption; four of phlegmonous and one of gangrenous erysipelas. If other surgeons meet with the same success which appears to have attended M. Reynaud in the use of his remedy, they will have great reason to thank him for its recommendation.—*Journal des Connaissances Medico-Chirurgicales. Fevrier*, 1837. *From Idem.*

ON THE
TREATMENT OF DELIRIUM TREMENS BY DIGITALIS AND OPIUM.

I. *On the Infusion of Digitalis in Delirium Tremens.*

By Dr. Magnus Huss, of Stockholm.

The infusion, prepared with a drachm of the leaves to a pint of water, was administered in six cases, all of them men of strong constitution, of from twenty-four to thirty-three years of age. Two of the cases required bloodletting. In three, a table-spoonful of the infusion was administered every hour throughout the day only; in the other, a like quantity was exhibited every hour both day and night. In the former number, the disease yielded, and sleep ensued on the third day; in the latter number, sleep ensued in thirty-six hours; an equal quantity of the infusion was thus required in both cases. The patients awoke after a sleep of from six to ten hours, free from the disease, but labouring more or less under the effects of the medicine. In one patient the pulse had sunk to thirty-five beats, but in the other the rhythm was normal; in the whole number the pupils were contracted, and they complained of dryness of the mouth, burning in the throat, humming in the ears, heaviness in the head, great weakness, and nausea; which last symptom was so severe in one patient that for two days he vomited whatever he took.—*Jahrbücher der Gesammten Med.* B. xv. H. 1.

II. *On the proper Dose of Opium in Delirium Tremens.* By Dr. WEISSE.

A case of delirium tremens, in which one grain of opium, taken every hour up to fourteen doses, failed in effecting a cure, but removed the delirium. The friends became alarmed by observing that the patient squinted incessantly, saw double, and that the face became horribly distorted. These symptoms were attributed by Dr. Weisse to the opium producing too little effect; he accordingly ordered two-grain doses every two hours. After the second dose the patient slept soundly, and awoke quite well. Dr. W. observes, that when a patient labouring under delirium tremens is under the influence of opium, and his mind, instead of picturing to him men and devils, begins to busy itself with *insects*, he is about to fall asleep.—*Zeitschrift f. d. Gesammte Med.* B. v. H. 2. *Hamburg, June,* 1837. From *the Brit. and For. Med. Rev.*

KREOSOTE IN GONORRHŒA, GLEET, ETC.

Dr. Robert Dick, (Glasgow,) begs, through the medium of this Journal, to call the attention of the profession to the use of kreosote in the chronic stage of gonorrhœa, and in gleet. He has tried it in some cases, and thinks its beneficial effects are more obvious than those of copaiba. He has administered it in doses of two drops a day, with loaf sugar beaten into syrup with water.

Whether it may be effectual in some species of impotence, and in chronic pulmonary catarrh, remains to be seen.—*Glasgow, March,* 1838, from *Edinb. Med. and Surg. Journ. April,* 1838.

SURGERY.

ON THE CURE OF CLUB-FOOT BY SECTION OF THE TENDO-ACHILLIS.

To the Editor of the Eclectic Journal of Medicine:—

SIR,—Seeing that in our various medical journals there is somewhat of a difference of opinion with respect to the priority of the operation of the division of the "tendo-Achillis" "for the cure of that particular kind of deformity called *pes equinus*," I beg leave to lay in also my claim for the efforts I have made towards introducing that operation into this country. As early as 1831 I proposed performing the division of the "tendo-Achillis" in the case of Miss P., according to Professor Delpech's method, adopted in the case that he successfully cured, as related in his work; a copy of which he subsequently had the goodness to present to me. His letter, on the occasion, may throw some light on the *history* of this method *in this country.*

Translation of the letter of Professor Delpech:—

Montpellier, February 25th, 1831.

SIR, AND MUCH RESPECTED FELLOW MEMBER,

Mr. B., to whose ill health I have been fortunate enough to administer some relief, has had the goodness to make me acquainted with your work upon the "Phenomena of Endosmose and Exosmose," and with your last translation. I owe you many thanks for the instruction I have derived from them. Our mutual friend, Mr. B., has informed me of your presumed want of some work upon "club-feet," and has asked my opinion in the matter. The study of deformities is almost every where abandoned to brutal quacks, or to medical men who imitate these wretches:—science has, therefore, derived but little benefit from their researches. Occupied for a long time with this important question, I sought to enlighten myself; but I found nothing useful, or which could be relied on. I then sought resources in the study of nature, where I found most powerful ones. I do not cultivate science for myself, but for mankind; I therefore published what I knew of it. I beg you, my dear sir, to accept a copy of my "Treatise on Orthomorphy," which work I shall intrust to the care of Mr. B. to forward to you. You will find in it the principles laid down on the subject of "club-feet." As to the means of curing, each case requires its peculiar treatment, because each case has its difficulties. The indication being known, it is not difficult to attain it. If I can be of any utility to you in Europe, I earnestly entreat you to accept of my services. I should be much gratified were you to allow me to correspond with you from time to time. Your adopted countrymen have clear minds and great perseverance. I should be delighted to have scientific relations with America; and a correspondent as enlightened as yourself would be most useful to me.

Receive, my dear sir, the assurance of the esteem of your devoted servant,

DELPECH.

To Dr. Togno, Philadelphia.

Soon after the date of this letter I was consulted by Mr. P., the father of the patient above alluded to; and as I thought, from the extreme deviation and complete revolution of the whole right foot under and backwards, that no machine would ever restore this deformity, I proposed the division of the "tendo-Achillis." The parents, after listening to a long explanation of my ideas upon the subject, agreed with me that it was the best thing that could be done, and desired me to perform the operation as I advised. I then proceeded to have a correct drawing made of the appearance of the foot by a good artist; and in order to be doubly sure, I made, myself, a plaster of Paris cast of the foot, which is still in my possession, and which I consider a very great curiosity. While I was making these preparations and having the proper machine constructed to place the foot in after the operation, by some mischance a celebrated teacher of surgery in this city was consulted. He gave, as his decided opinion, that it was an operation endangering the life of the patient, and therefore ought to be abandoned. The same professor supported the same opinion in presence of Professor Horner, who can vouch for this statement. What was considered a deadly operation, and violently opposed in June 1831, has since been successfully performed all over Europe as well as in the city of New York. For the sake of all concerned I cannot help regretting this unfortunate opposition.

I also read an essay before the College of Physicians in January 1833 on this subject, in which I early advocated the great utility of a well-constructed apparatus, together with well-directed and appropriate gymnastics for the perfect cure of deformities, in which I also mentioned the utility of the section of the "tendo-Achillis," as proposed by me in the case of Miss P., and the opposition of a certain professor to it. These observations of mine must be recollected by some of the gentlemen then present.

In conclusion, I would further add, that although I have early been an advocate for the division of the "tendo-Achillis" in those cases for which no apparatus could produce a complete cure, as in extreme cases of "*pes equinus*," I greatly fear that hereafter this operation will be resorted to in many instances in which a simple and appropriate machine would suffice, and would perform a more perfect cure.

Very respectfully,
JOS. TOGNO.

We subjoin a translated summary of Professor Delpech's case, by Dr. Togno, made from the original work, now before us, and belonging to Dr. T., viz. *Chirurgie de Montpellier*, Vol. I. p. 177–92.

The patient was a lad nine years old. At the time of the operation the patient was placed on his abdomen: a straight bistoury was used to divide the skin longitudinally and anteriorly to the tendo-Achillis, about one inch long. (It would be well if the incision made in the tendon was in its thick part, not across, but oblique to it.) A curved bistoury is the best instrument to divide the tendon; must take care not to cut the skin in so doing. Next must see to what extent the deformity can be corrected by this division, afterwards the apparatus must be put on; and in such a manner as that the two ends of the tendon may be brought in contact with each other. The incision through the skin was now dressed with sticking plaster.

It is of the utmost importance that a nurse should watch the patient, and prevent any undue motion in the limb.

On the *tenth* day of the operation the dressing was removed to examine the state of the tendon, and then it was dressed with lint and simple cerate.

On the 12th day the slough of the ends of the tendon were discharged, and every thing doing well.

On the 20th day there was no pain or uneasiness: on this day the union of the tendon was examined, to see if it could bear extension. This must be done, however, with the greatest care.

On the 28th day no pain when the extension was made. The union was complete; and therefore the machine was made to pull the foot very gently without any fear of rupturing the tendon.

On the 30th day the leg was extended on the thigh: from this moment considerable pain was felt in the leg along the tendon, and in the whole leg.

On the 33d day the regular flexion of the foot was made: it produced a little pain for three hours or so.

In a few days after the foot was placed nearly in its natural situation. The two cut ends of the tendon were now united by an intermediate substance to the extent of an inch and a half. By this time the cicatrization of the skin was nearly complete. By pursuing this treatment a few days longer the foot was brought to form a right angle with the tibia.

The patient was kept a month longer in this state of repose, to permit the tendon to acquire its power; and at last it was found to be elongated two inches; but the tendon at this part was only one-half as thick as in its natural state. It was impossible to produce flexion greater than a right angle.

N. B. Some abscesses about the knee were formed as the sequelæ of this case, and they were ascribed to the long confinement of the patient.

ACUPUNCTURE, COMPRESSION, AND IODINE INJECTION EMPLOYED FOR THE CURE OF HYDROCELE. By M. A. VELPEAU.*

In the twenty-fourth volume of this Journal, our correspondent, Dr. Cumin, now Professor of Midwifery in the University of Glasgow, in a short paper on the treatment of ganglion, proposed, in 1825, to attempt the cure of hydrocele by opening a communication by means of a cataract needle between the cavity of the *tunica vaginalis* and the cellular tissue of the scrotum.* Several years elapsed, however, before it was applied to practice, which was at length done by two English surgeons, Mr. Travers and Mr. Keate,† and about the same time apparently by Mr. Lewis. The method has been tried in the Royal Infirmary of this city by Mr. Syme, the Professor of Clinical Surgery, and Mr. Watson, one of the surgeons to the institution, in a considerable number of cases; and with a very general degree of success. By M. Velpeau it has been subjected to clinical experiment in comparison with other means, and its merits as a therapeutic agent have been estimated rather below the method of injection, and especially by iodine injection.

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* Archives Generales de Medecine, 3d series, tome i. p. 29. January, 1837.

This surgeon tried first simple acupuncture, but without success, in two cases. He then, instead of leaving the needle in its place, passed a thread crosswise through the tumour in two other cases, thus reviving the old method by seton. On the third day these setons were withdrawn; suppuration followed, and the cure took place, but more slowly, and with more inconvenience, than by the vinous injection. The treatment of one case appears to have occupied sixty-four days.

The second method attempted by M. Velpeau was compression by means of plaster after puncture. This he employed in three cases, by applying over the scrotum and testis, immediately after puncture, slips of adhesive plaster, so close as to keep the corresponding surfaces of the vaginal coat in contact. The fluid nevertheless was reproduced.

The third method used by M. Velpeau consisted in, after emptying the vaginal coat in the usual manner, injecting into its interior a mixture of water and the tincture or alcoholic solution of iodine, in the proportion of from one to two drachms of the tincture to one ounce of water. After injection the part swells for three or four days, but without causing fever or serious pain. Resolution then begins and proceeds rapidly. This method M. Velpeau employed in twenty cases, and in none of the patients did the slightest bad symptom take place. Eighteen of these cases were cured in less than twenty days. In one of the two others resolution was only half effected on the 31st day; and he repeated the injection, and the cure was then rapidly completed. The 20th patient, who had a hydrocele with two cells, remained six weeks in hospital on account of swelling of the testicle. Of the other eighteen, in two, vinous injection and cauterization had been used without avail; two had encysted hydrocele of the chord; in three the tumour contained about twelve ounces of serum; in ten the testicle was hypertrophied, irregular, and long diseased; in all except two the disease was of more than six months' duration. Two had it for fifteen years, and one had it twenty-four years.

In this method distension by the injected liquid is unnecessary; and hence there is less risk of regurgitation, or injecting it into the scrotum. From the dissection of the scrotum of one patient who died in consequence of amputation, it appears to produce general adhesion between all points of the vaginal coat, and thus to render relapse impossible.—*Edin. Med. and Surg. Journ., April,* 1838.

THE PROGRESS OF LITHOTRITY.

I. *On the existence of Lithotrity amongst the Arabians during the twelfth and thirteenth Centuries.* By C. F. Martins, M.D.

It appears from several passages in various Arabian writers, that, during the twelfth and thirteenth centuries, they were acquainted to a certain extent with lithotrity. In a work by the celebrated Arabian physician Azzarahvi (vulgarly designated Albucasis, who died at Cordova in 1107,) entitled "*Liber Theorices necnon Practices,*" there is the following passage: "Accipiatur instrumentum subtile quod nominant mashafarebilia et suaviter intromittatur in virgam, nunc volve lapidem in media vesicæ, et si fuerit mollis frangitur."

In an Arabian work, entitled "The Flower *of Thoughts* on precious Stones," by Chehab-Eddin-ahmed-Ben-Joussouf-Teifaschy, we have the following observation:—

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* Edinburgh Medical and Surgical Journal, Vol. xliv. p. 97.

† Medical Gazette, Vol. xix. p. 187 and 789, 1837.

"One precious advantage of the diamond which Aristotle has spoken of, and which experience confirms, is its employment in calculous affections; when an individual is affected with stone, whether in the bladder or in the urethra, we take a small diamond, and fix it to the extremity of a small stalk of metal, either of copper or silver, and introduce it into the organ containing the stone, which can be pounded by frequent rubbing."

Ahmed-Ben-Abikheled, a physician known by the name of Ebn-al-Harrar, relates, in a work which he has written on calculous disorders, that he employed these means upon a domestic, who suffered from an urinary calculus of a very large size. "This man," says he, "would not submit to the operation of lithotomy; I therefore employed the other means indicated. I pounded the stone by rubbing, and reduced it to a size sufficiently small to pass out with the urine."—*Revue Médicale. July.* 1837.

II. *Improved Lithotritic Instrument.* By M. Civiale.

The instrument which M. Civiale submitted to the Academy of Sciences differs from those which he had hitherto made use of, in the formation of the curved portion. Some difficulty was always experienced in seizing and fixing small stones and fragments of stones, and the operation often caused much fatigue to the patient. M. Civiale has obviated these inconveniences by increasing the surface of the curved part, and diminishing the quantity of material of which it was formed. In the old instrument, the size of the female branch was three lines, and that of the male two lines. In the new instrument the female branch is five lines and a half and the male four, so that the surface by which the calculus is seized is nearly doubled. The instrument is not too much weakened by loss of material, the urethra suffers no injury from increase of size, the bladder is less apt to be pinched, and the stone is less liable to escape. These advantages have been ascertained by experiment, so that we may safely regard the new instrument of M. Civiale as an improvement in the art of lithotrity.—*La Presse Médicale.* Tome i. 1837, p. 479.

III. *Lithotrity in a Child, aged fourteen Months.* By M. Segalas.

This child was aged fourteen months, and during seven months had manifested symptoms of stone; among others, frequent desire to micturate, violent pain, and particularly whilst making water, almost constant diarrhœa, and prolapsus of the rectum every time that the urine was evacuated. After having detected a calculus, M. Segalas introduced the "brise-pierre," without any other preparation than having dilated the urethra by a wax bougie, allowed to remain for a few minutes in the urethra. A calculus of a diameter of ten lines was seized, and broken by pressure and percussion combined. The calculus, which was composed of oxalate of lime, was entirely destroyed during four sittings. Neither of these was followed by any accident, and during their intervals the child continued to go to school, to run and play as usual. He subsequently became extremely healthy.—*Bull. de l' Acad. Roy. de Med. July,* 1837.

CHEMISTRY.

LIQUIDIZATION AND SOLIDIFICATION OF CARBONIC ACID GAS.

It is well known that it has long been an important problem in practical chemistry, to reduce to the liquid and solid form those gaseous bodies, which, being hitherto only known in the gaseous shape, have been very generally denominated by chemists *permanently elastic fluids.* This denomination, there is now reason to presume, from the advanced progress of chemistry, and the increased power of its resources, will be no longer justly applicable.

It is known, at least, that chemists have lately succeeded in liquefying carbonic acid gas, or causing it to assume the form of a liquid, chiefly by means of very great pressure. Mr. Faraday, in this country, made the gas assume a liquid form, by subjecting it, within a strong glass tube, to the pressure of 36 atmospheres at 32° of Fahrenheit's thermometer; and M. Thilorier of Paris produced in 1835 the same result in a similar manner.* In this state, if allowed to escape, it immediately evaporates, and a most intense degree of cold, estimated at —180°, is produced, while part of the carbonic acid is converted into the solid form, in the shape of small, whitish, woolly flocks or masses, which are intensely cold, and which adhere so strongly to the walls of the glass, that it is impossible to get it out by any other method than breaking the flask. This is the solidified gas; in other words, a substance supposed to be permanently elastic and gaseous, converted into a solid.

On Wednesday, the 14th February, 1838, this interesting experiment was performed in the chemical class-room of the University, in the presence of the Fellows of the Royal Society, the Fellows of the Royal Colleges of Physicians and Surgeons, and several literary and scientific gentlemen.

Mr. Kemp, practical assistant to Dr. Hope, Professor of Chemistry in the University, had, by the combined effects of high pressure and intense cold, reduced carbonic acid to the liquidized form with a degree of facility, which enables him to present it in considerable quantity, and perform with it several striking and interesting experiments. His method is to confine the gas thus liquidized in a very strong cylindrilical vessel of copper, which is provided with a stop-cock, from which the liquefied gas is allowed to escape in the quantities, and at the rate which the experimenter deems proper. To one side of this vessel, also, is attached a glass tube, communicating with the interior of the copper cylinder, and in which the liquefied carbonic acid gas may be seen.

Dr. Hope first allowed a quantity of the liquefied gas to escape by turning slightly the stop-cock, when it rushed out with a peculiar hissing sound, and was received in an ordinary glass flask. As it issued part evaporated, and at the same time was formed in the glass flask a quantity of white, friable, solid matter, which fell to the bottom of the vessel, and could be heard striking against the interior as it was shaken or moved. This substance is intensely cold, and the degree of cold produced is so great, that it is impossible to touch the glass with the uncovered hand. The flask was, after a sufficient quantity had been received, broken, and a mass of solidified carbonic acid gas, as large as a filbert, was then presented to view.

The theory of the solidification in this case, Dr. Hope explained, was, that, while part of the liquidized gas is evaporated, the moment the weighty pressure is withdrawn, the cold produced is so intense, as to reduce from the liquid to the solid form the residual part. Thus incessantly as a jet of liquidized gas continues to escape, part is evaporated, and the cold thus produced is sufficient to freeze the rest.

The next experiment was a very conclusive one. It is well known that mercury requires for its congelation a temperature of—40°, that is 40° below zero of Fahrenheit. A quantity of the liquidized gas was allowed to issue from the copper cylinder, and received into a glass flask, in which was introduced a quantity of liquid mercury. In the space of two minutes it was frozen into a solid mass, which could be divided with the knife. A portion of this mercury dropped into a glass of water gradually but rapidly fell down in its usual fluid-form, while in its place was left a mass of ice of exactly the same shape and size. This shows that the cold capable of being produced by the solidification of carbonic acid gas must be very great.—*Edin. Med. and Surg. Journ., April*, 1838.

To the above, we would add, that Dr. Michell, our friend and colleague in the "Philada. Medical Institute," already advantageously known in Europe for his diversified and elaborate experiments on the Penetrativeness of Gases, has repeatedly exhibited of late the carbonic acid as solid. He did this for the first time last winter, before the large class to which he lectures during the season, at the Franklin Institute. From some notes, which he has been good enough at our request to furnish us, we derive the following interesting particulars:

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* Annales de Chimie et de Physique, Tom. lx. p. 427 and 432. Paris, 1835.

The quantity of solidified carbonic acid, obtained by one experiment was so great, that a weighed pound of mercury was frozen by one-fifth of it; the frozen mercury was freely handled without injury. When a few degrees below its freezing point, mercury is a soft, malleable, ductile metal, much like lead in texture, colour, and hardness. But just as it reaches its melting temperature it is crystalized and very brittle, and flies to pieces under the point of a knife.

By hermetically enclosing some of the solidified acid in glass tubes, it may be liquified. In one of these tubes the glass appears dry above 56° F., in another above 86° F.; but the slightest depression of temperature below these numbers, gives a precipitate which gradually increases as the temperature descends, until a quantity of limpid liquid is seen within. The liquid boils violently by the slightest elevation of temperature.

The pressure at 55° F., is 45.3 atmospheres, or 679.5 lbs. to the square-inch. One of the tubes bears that pressure.

The other bears a pressure of 1095 lbs. at 86° F.

The generator is a cast iron cylinder, six inches in diameter, and twenty inches in length, supported in the middle by a massive wrought-iron ring, and hung on a swivel. Its cavity is seventeen inches long, and three inches wide, and it holds about four pints, liquid measure,—it is connected by a pipe with a cast-iron receiver of the capacity of twelve fluid ounces. On its side is placed a glass tube, in which may be seen the liquid acid, and on the top is fixed a pressure-guage, also of glass.

The liberated liquid expands at 32° to about 570 times its volume, by which a cold of not less than 90° below zero is caused, and by which some of the liquid is frozen into a kind of snow.

Doctor Michell has not made any alteration in the principle, but only in the details of Thilorier's apparatus.

The various important applications to the arts which may be made by this discovery, will, we believe, be pointed out at an early date, by Dr. Michell in the pages of the Journal of the Franklin Institute.

MISCELLANEOUS.

SPECULUM UTERI MADE OF GLASS.

Dr. Hacker, of Leipzig, uses a glass speculum in examining the vagina and womb. It consists of a simple oval cylinder, the glass of which is about two lines in thickness, its length being from four to six inches. The diameter of the end which is introduced into the vagina is half or three-quarters of an inch by a quarter or half an inch. This extremity is furnished with a blunt, rounded, and tumid border, whilst the cylinder at the other end is funnel-shaped. Its form corresponds essentially with that of other specula, except that its circumference is less. The advantages of these specula of glass are their cheapness, and the facility with which they can be cleansed. When, too, they are introduced into the vagina, its mucous membrane, immediately before the tumid extremity of the speculum, is pressed into the cavity of the speculum, where it can well be examined. If the material be transparent glass, by means of a bright artificial light, the parts of the vagina which are covered by the speculum may be examined. Specula of dark glass are better fitted for examining the mouth of the womb.—*Jahrbücher der in-und-ausländischen Medicin.* Heft 3. 1837.

ABSTRACT OF THE CASES

Of 1246 *Patients treated in the Pennsylvania Hospital in the year ending 28th April*, 1838.

ADMITTED FOR	Cured.	Relieved.	Removed by friends.	Discharged for misconduct.	Eloped.	Died.	Remain.	Total.
ACCIDENTAL INJURIES, VIZ.:								
Burns and Scalds	8	1	0	0	0	6	1	16
Contusions and Wounds	96	14	8	0	0	12	13	143
Gunshot Wounds	2	2	0	0	0	2	1	7
Fractures	68	3	6	0	0	9	5	91
" ununited	2	0	0	0	0	0	0	2
Dislocations	13	0	1	0	0	0	0	14
Sprains	18	1	2	0	0	0	1	22
Frosted	2	0	0	0	0	0	1	3
Poisoned	1	0	0	0	0	0	0	1
DISEASES OF THE CHEST, AND RESPIRATORY ORGANS.								
Asthma	1	0	0	0	0	0	0	1
Bronchitis	11	3	3	0	0	3	1	21
Catarrh	8	4	0	0	0	0	1	13
Hæmoptysis	1	0	0	0	0	0	0	1
Phthisis pulmonalis	0	2	3	0	0	5	4	14
Pleurisy	6	0	2	0	0	1	0	9
Pneumonia	5	1	1	0	0	3	2	12
Affections of the Heart	2	0	2	0	0	1	0	5
DISEASES OF ABDOMINAL VISCERA.								
Colica Pictonum	1	0	0	0	0	0	0	1
Diarrhœa	4	1	0	0	0	4	0	9
Dysentery	12	0	1	0	0	4	0	17
Constipation	2	0	0	0	0	0	0	2
Enteritis	2	0	0	0	0	0	0	2
Gastritis	4	0	0	0	0	1	2	7
Hernia	1	0	0	0	0	0	0	1
Hæmorrhoids	2	1	0	0	0	0	0	3
Fistula	4	3	0	0	0	2	0	9
Artificial anus	1	0	0	0	0	0	0	1
Prolapsus ani	1	0	0	0	0	1	0	2
Worms	1	0	0	0	0	0	0	1
Hepatitis	2	0	0	0	0	0	0	2
Dyspepsia	0	1	1	0	0	1	1	4
DISEASES OF GENERATIVE, AND URINARY ORGANS.								
Diseased Uterus and Vagina	2	4	1	0	0	0	1	8
" Bladder and Urethra	5	1	1	0	0	0	0	7
" Testes and penis	9	2	0	0	0	0	3	14
Irregular Catamenia	3	1	0	1	0	0	3	8
Stone in the Bladder*	4	0	0	0	0	0	1	5
Syphilis	58	6	3	0	0	1	4	72
DISEASES OF THE BONES.								
Caries and Necrosis	1	0	1	0	0	1	0	3
Diseased joints	9	1	0	0	0	0	5	15
" Spine	0	0	0	0	0	0	1	1

* Two of the cases of stone in the bladder were cured by Lithotripsy and two by Lithotomy.

ADMITTED FOR	Cured.	Relieved.	Removed by friends.	Discharged for misconduct.	Eloped.	Died.	Remain.	Total.
DISEASES OF THE SKIN.								
Erysipelas	2	0	0	0	0	1	1	4
Eruptions	2	0	0	0	0	0	0	2
Psoriasis	3	0	1	1	0	0	2	7
Tinea Capitis	2	0	0	0	0	0	0	2
DISEASES OF THE NERVOUS SYSTEM.								
Cephalalgia	4	1	0	0	0	0	0	5
Chorea	1	0	0	0	0	0	0	1
Convulsions	1	0	0	0	0	0	1	2
Epilepsy	1	0	0	0	0	0	0	1
Hysteria	0	0	1	0	0	0	0	1
Neuralgia	1	1	1	0	0	0	0	3
Spinal Irritation	1	2	0	0	0	0	0	3
Paralysis	2	3	2	0	0	2	4	13
DISEASES OF THE SANGUINEOUS SYSTEM.								
Apoplexy	2	0	0	0	0	1	0	3
Inflammations	23	2	0	0	0	0	1	26
Jaundice	2	0	0	0	0	0	1	3
FEVERS,	17	2	0	0	0	3	1	23
Bilious	2	0	0	0	0	0	0	2
Intermittent	26	0	0	0	0	1	0	27
Remittent	7	0	0	0	0	0	1	8
Typhus	1	0	0	0	0	4	1	6
Typhoid	14	0	0	0	0	5	0	19
Small Pox	5	0	0	0	0	1	0	6
Rubeola	0	0	1	0	0	0	0	1
MISCELLANEOUS CASES.								
Cancer	1	0	1	0	0	1	0	3
Abscess	2	0	0	0	0	1	2	5
Ulcer	40	9	2	2	0	0	5	58
Paronychia	3	1	0	0	0	0	0	4
Tumour	4	1	1	0	0	0	2	8
Hare lip	2	0	0	0	0	0	0	2
Scrofula	3	1	1	0	0	0	0	5
Scurvy	0	2	0	0	0	0	0	2
Elephantiasis	1	0	0	0	0	0	0	1
Dropsy	8	1	2	0	0	4	3	18
Rheumatism	57	7	1	0	0	2	8	75
Diseased eyes	21	4	5	1	0	0	5	36
Varicose veins	3	0	0	0	0	0	0	3
	634	89	55	5	0	83	89	957
Insanity	21	17	27	0	1	14	100	180
Mania a Potu	18	0	0	0	0	3	1	22
	675	106	82	5	1	100	190	1159
PREGNANT WOMEN:								
Delivered safely 39	0	0	2	0	0	1	5	47
Infants discharged in health* . . 37	0	0	0	0	0	1	2	40
			84	5	1	102	197	1246

* Two female children were still-born.

	Pay.		Poor.	Total.
Patients remaining in the Hospital, 4th mo. 22d, 1837,	105	and	104	209
Admitted within the last year, ...	382	and	655	1037
	487	and	759	1246
Discharged, ...	392	and	657	1049
Remaining in the Hospital, 4th mo. 28th, 1838, .	95	and	102	197

The average number of patients maintained in the Hospital during the past year, has been 202, of whom 102 were pay, and 100 poor patients.

Of the poor patients admitted in this year, 210 were persons who had sustained accidental injury, received without security, and treated at the expense of the Institution. Of this description also, were 35 of the cases remaining in the Hospital at the close of the preceding year.

The patients treated in the Hospital in each of the last ten years, have been as follows:

		Poor.	Pay.	Total.
Official year ending in .	1829, .	756	606 .	1362
	1830, .	782	561 .	1343
	1831, .	724	622 .	1346
	1832, .	700	673 .	1373
	1833, .	699	592 .	1291
	1834, .	702	512 .	1214
	1835, .	760	464 .	1224
	1836, .	748	495 .	1243
	1837, .	695	483 .	1178
	1838, .	659	487 .	1246

The total number of patients admitted into the Hospital from its establishment in 1752, to 4th mo. 28th, 1838, was *Thirty-five thousand six hundred and forty-six;* of whom 18,979 have been poor people, maintained and treated at the expense of the Institution.

Of the 1037 persons received into the Hospital during the past year, there were

	Males.	Females.	Total.
Infants born in the Hospital, . . .	18	22	40
Under 18 years of age, ...	60	17	77
Unmarried adults, ...	476	83	559
Married, ...	195	87	282
Widowers and widows, ...	35	44	79
	784	253	1037

Of the 1037 persons thus received there were

Natives of the	United States.		572
"	England, ...	56	411
"	Wales, ...	3	
"	Scotland, ...	8	
"	Ireland, ...	344	
"	Sweden and Norway, ...		4
"	Denmark, ...		8
"	Germany, ...		21
"	Switzerland, ...		1
"	Italy, ...		2
"	France, ...		11
"	Spain, ...		2
"	Phillipines, ...		1
"	Teneriffe, ...		1
"	Africa, ...		3
			1037

From 2d mo. 11th, 1752, to 4th mo. 28, 1838, have been

	Persons.
Cured,	22,335
Relieved,	4,216
Removed without having received material benefit,	2,496
Eloped and discharged for misconduct,	1,081
Pregnant women safely delivered,	785
Infants born in the Hospital, and discharged in health,	747
Died,	3,789
	35,449
Remaining in the Hospital, 4th mo, 28th, 1838,	197
Total,	35,646

BIBLIOGRAPHY.

Velpeau's Anatomy of Regions. Translated from the French by Henry Hancock—Lecturer on Practical and Surgical Anatomy, at the Westminster Hospital School of Medicine, and Surgeon of the Royal Universal Infirmary for Children. London, 1838. Pp. 585. 8vo.

Anatomy of Regions of the French corresponds somewhat with Surgical or Topographical anatomy of the English. The present work is by a distinguished and laborious writer on Surgery and Obstetrics. In the last department he has been for some years advantageously known to the American reader, through the instrumentality of our friend, Dr. Meigs, whose translation of his Midwifery has, we learn, reached recently a second edition.

The Anatomy of Regions, though in some respects a more natural mode of exhibiting the parts than the common Descriptive Anatomy, should be regarded as a necessary adjunct to, but by no means substitute for, this latter. The details of the structure and arrangements of parts in each region separately, give the requisite and all-necessary knowledge to the surgeon, and enable the pathologist to appreciate better the morbid changes, in the destruction of parts, and the extent to which other tissues yield to disorganization, than the one primarily affected. But the reader is not left to form these inferences without aid. After a description of the several tissues and organic systems composing a particular region, we will suppose the "Mammary" which now happens to be open before us, the tendency to particular degenerations and diseases is mentioned, and the section is terminated by *Practical Remarks.* "The mamma is composed of a proper tissue, the seat of its principal maladies, of a fibro-cellular structure, the ordinary situation of mischief in several of its deep seated affections; lastly, of cellulo-adipose tissue, which appears destined for its nourishment and protection against external violence, and in which its abcesses and phlegmoneous inflammations commonly occur."

After describing the seat and cause of abscesses in the different parts of the mamma, the author proceeds to say:

"Thus, the breast is subject to three variations of abscess: Firstly, subcutaneous abscess, least serious of all; tubercular near the nipple, and larger as they are more distant from the centre. Secondly, sub-mammary abscess, commonly very large, and with difficulty distinguished in the beginning. Thirdly, abscess commencing in the mamma or among its septa, frequently becoming sub-cutaneous, sometimes sub-mammary.

From these remarks we perceive, that the first cannot be opened too early; that the second must, in addition, be largely and deeply incised; and that, to cure the third, it may be indispensable, that we carry the incision completely through the substance of the gland."

It must not be supposed that the regions described are only those which face outwardly. Of the abdomen we have a detail of its *Parietes in General*, including the *Umbilicus*, with reference to *umbilical hernia*, and the layers divided in the operation of paracentesis of the abdomen and the Cæsarian operation; the *fascia*, *Poupart's ligament*, and *inguinal canal*, and *crural ligament*, in relation with hernia, the proper abdominal cavity, and the viscera in it, and their connexions and relative situations. The subject of hernia is still further treated under the head of the region of the pelvis. The perineum described, there follows a detail of the parts interested and cut in the different kinds of operation for the stone, and on the urethra.

Descriptive details of the parts, as displayed by dissecting successive layers from the skin to the bone of the extremities, prepare the way for noticing fractures and dislocations, and the means of curing them, as well as of taking up arteries, &c., after amputation, or for aneurism.

The utility of a work of the nature of that here imperfectly analyzed, must be manifest to all. Of the able manner in which the present one has been prepared, abundant testimony could be procured, if the name of its author were not a sufficient recommendation. For ourselves, we should like much to give the Anatomy of Regions a place in the LIBRARY, and may perhaps be induced to do so sometime in its next year, unless the number and character of other works be such as to entitle them to a preference.

Cases of Autoplastie. By THOMAS D. MUTTER, M. D. Lecturer on Surgery, Fellow of the College of Physicians, &c. &c. Pp. 16, with Two Engravings.

These cases, the records of which are now before us in a pamphlet form, give evidence of Dr. Mutter's success in removing, by appropriate operations and subsequent surgical treatment, most unseemly deformities. The first case was of deformity of the mouth from a burn; the second of a loss of a considerable portion of the right half of the nose.

The deformed mouth, which was barely large enough to admit of the point of the finger, was successfully treated by Dieffenbach's method. This consists in the removal on each side, at the angles of the mouth, of a small portion of the muscle and external teguments of the cheek, leaving the mucous membrane, which is afterwards cut on each side, to within a few lines of the extent to which the incisions for the removal of the other parts were carried. The flaps of membrane thus formed were then brought out and reflected over the margins of the wounds, and firmly attached to them by means of the twisted suture; the needles used being very short and fine. Finally, a roller was applied as for a case of fracture of the lower jaw. All dressings were taken off on the seventeenth day after the operation, and the subject of it, a girl about eleven years of age, was allowed to pursue her ordinary course of life.

The operation for the removal of the deformity in the second case consisted, as well as we can understand the description, which is given too with considerable minuteness, in clearing away the callous borders of the diseased opening, and making a flap by an incision downwards and outwards, from above to below the outside of the orifice, and another, from the lower termination of the first horizontal and outward on the cheek, so that the two make an obtuse angle; a flap was then made by dissecting the integuments included in the angle, and afterwards drawn inwards and over the diseased orifice, so as that its border was applied to the pared border of the latter nearest the ridge of the nose. The adhesion between these two borders was kept up by four stitches of the interrupted suture, and two or three adhesive strips in the spaces between them.

Dr. Mutter tells us: "with those familiar with the divisions of modern 'Autoplastie,' the operation just detailed will readily be recognised as belonging to that, in which the loss of original tissue is supplied by *sliding a portion of neighbouring integument over the deformity*. For the *principle*, the profession is indebted to Celsus."

The operator and narrator of this case thinks that this mode of relieving deformity is new, and superior to the common one, which consists in a section of a flap from the cheek or forehead, torsion of the former, and its attachment to the septum by suture or strap. The consequence of these is a scar of an unseemly appearance, and the additional disadvantage of a risk of gangrene from the impeded circulation in a flap thus twisted.

A Lecture on Epidemic Diseases generally, and particularly the Spasmodic Cholera. Delivered in the city of New York, March, 1832, and repeated June 1832; and in Albany, June 4, 1832; and in New York, June 1833. With an Appendix containing general Testimonials, and a Review of Beaumont's Experiments on the Gastric Juice. By SYLVESTER GRAHAM, Public Lecturer on the Science of Human Life. Boston, 1838. Pp. 125.

Though somewhat diffuse, Mr. Graham in this lecture speaks like a man who has earnestly and carefully examined his subject, as he certainly does like one who is fully convinced of the soundness of his views, and the importance of his deductions from them. We know of no lecturer or writer out of the profession, who is, in the main, so well informed in physiology, and especially on the connexions and influence of the nervous system, nor who is so happy in the application of his knowledge to the questions of which he treats. His success in this way furnishes, to our mind, illustration and proof of the propriety of making physiology and hygiene branches of popular education. They will be found not only the best correctives against quackery, but also salutary checks on the vagaries of opinion and advice into which regular physicians are apt to run, particularly when they address themselves to the people on the subject of epidemic diseases, their prevention, and cure. On these latter points, Mr. Graham is at issue with some brandy and port wine doctors, whose recommendations, before and during the prevalence of the cholera in New York, were hastily and ignorantly given, without forethought, and without reference to either sound physiology or hygiene.

On the advantages of temperance in the large and proper sense of the word, sobriety, moderation, chastity, as a protection against cholera and epidemic diseases generally, Mr. Graham dwells with force and instruction. His illustrations, derived from the examples of sympathy in the spread of convulsive diseases, are curious and to the point.

We had marked passages for insertion, both on account of their positive value and to enforce our own favourable opinion of Mr. Graham's lecture; but want of space precludes us from carrying out our wish in this particular. We must say, however, that both the learned and the unlearned, the general reader and the medical reader, will be benefited, because instructed, by a careful perusal of this production.

We see every now and then evidences of the enthusiastic temperament of the writer, in a certain prodigality of figurative and fanciful language, which must weaken the effect of physiological and pathological observations; and produce in the mind a feeling of uncertainty, if not mistrust, of the logical connexion and sequence of facts and phenomena thus suddenly broken.

Some of the explanations of 'Technical and other Hard Names' might be advantageously revised, viz: *Cholera Morbus*, *Congestion*, *Epigastric*, *Tissue*. As a popular lecturer and author, Mr. Graham must be aware that the fewer *hard* names he uses, short of obscurity of phraseology, the better, for an easy and even thorough comprehension of the subject by his auditors and readers. The word *adscititious*, for example, might very well have been dispensed with in his lecture.

In conclusion, we would entreat our old friend, the author, to take a less equivocal title, or rather one with more meaning than that of "Public Lecture on the Science of Human Life."

The terms Human Life, convey a compound and an abstract idea, but do not indicate a science. It may be illustrated and benefited, and prolonged, by various sciences—ethics, physiology, dynamics, &c., but it is no more a science than is growth, or sensation, or thought.

Physical Education, or the Nurture and Management of Children. Founded on the Study of their Nature and Constitution. By Saml. Smiles, Surgeon. Edinburgh, 1838. Pp. 200, 18mo.

Without pretentions to, or a display of novelty, Mr. Smiles has written a useful work on the Physical Education of Children. We are not called upon either to analyse it, or to give copious quotations from its pages. Good sense, and, in the main, sound hygienic maxims, are its characteristic features. Regret is very properly expressed in the Introduction, that fathers and mothers "do not make themselves acquainted in some measure with the physical and mental nature of their offspring, and so be enabled, in a great measure, to avoid the causes of such decay and consequent suffering. Alas! unfortunately for the young, this part of education is, as yet, *unfashionable*. While no showy accomplishment, no matter how trivial, is neglected, and no pains spared for acquiring it, the knowledge of living structure, of the laws of animated nature, though ever before their eyes, is almost studiously avoided; and young females, as well as males, grow up to womanhood, in entire ignorance of all that relates to their future condition as parents, and the physical and mental development of the young, for whose welfare they may yet be so deeply responsible." More especially is this the case with the female part of the community. They on whom the management of the young more peculiarly, and we may say universally, devolves, are fearfully ignorant of the principles and the duties by which their supervision can be made useful to their charge.

The author properly remarks, as had been done long ago by Cicero, that "in fact education, whether good, bad, or indifferent, begins with existence." He adds; "the first and most important preceptor of man being his mother and nurse. She gives the first bend to the twig; by care, nourishing and training it into health and strength, or by neglect allowing it to dwindle into disease or deformity."

The chapters of the work before us, are severally on — 1, "The Peculiarities of the Infant Constitution, and order of its Development;" 2, "The Digestion of Infants and Children;" 3, "Respiration or Breathing;" 4, "Of the Skin;" 5, "Voluntary Motion;" 6, "Of Sleep and its Management in Children." The 7th, and last chapter, headed, "Physical Education the Basis of Morals and Intellectual Culture," is a faint sketch of the importance of the subject, rather than a full account of it in its various and all-important bearings.

An Address, delivered before the Medical Society of Tennessee, at its Eighth Annual Meeting, at Nashville. On the 7th May, 1838. By LUNDSFORD P. YANDELL, M. D.

This address is good both in subject and style; being clear and instructive, without either undue elaboration or common places. The weakness and credulity of early medicine are indicated with brevity and point, and made to serve as a foil to its present improved and improving condition. Emphasis is laid on the paramount importance, in medical education, of clinical practice and anatomical dissections; with a more than oblique complimentary allusion to what Louisville has been recently doing in these matters. Tennessee is invoked to imitate this example and others of a similar tenor.

In one particular we must dissent from Dr. Yandell. He overrates very greatly the influence of Napoleon, and the immense and varied field for observation opened to the medical officers of his army during his many wars, in nearly all climates, from the burning sands of Syria to the snows of Russia. The reform in the administration of the French hospitals, and the remodelling of the medical schools, was the work of the republic, to which Napoleon gave, indeed, his subsequent support. French medicine, whether in its pathology or its surgery, its anatomy or its physiology, has attained its present eminence rather in despite, than on account of, the long and bloody wars of Napoleon. The chief military writers of the medical and surgical staff, are Desgennettes, Larrey, and Percy; by none of whom have the boundaries of either medicine or surgery been enlarged, nor their details materially improved. Broussais was, it is true, an army physician, and accumulated large stores of pathological knowledge when in active service; but it is very doubtful whether his celebrated doctrines are deducible, or were deduced from these stores, without the subsequent opportunities presented by his being a hospital physician in Paris, and the study and comparisons carried out in a time of peace. The boasts of French surgery, a Desault, a Dupuytren, and a Boyer, were not military. General anatomy was created by Bichat, and improved an extended by Beclard and others, without aid from military sources—wars; or the sick, the maimed, and the dead therefrom. General and special pathology have received but few and meagre additions from the thousands of medical men engaged in active service in the armies of Napoleon, But if we contrast their labours with those in civil life at home, and chiefly in Paris, Strasburg, and Montpelier, they sink into entire insignificance. Prost, Chomel, Andral, Louis, Cruveilhier, Lallemand, in fine, all those who have within the last quarter of a century given French medicine its present proud eminence, and to French medical education its present direction and impetus. have no cause of acknowledgments to Napoleon's wars and ambition.

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CARROLL WHITE SULPHUR SPRINGS.

We have received a pamphlet, entitled "Charter of the Carroll White Sulphur Spring Company: in Alleghany County, Maryland, with a Scientific Report upon the Situation, Properties, Composition, &c., of the Springs."

The examination and analysis were made by Professor Fisher and Mr. Andrews, and resulted in their declaring the following to be the composition of the water of the spring No. 2.

"Temperature, 47° F. to 48° F.

Gaseous Contents.

Sulphuretted Hydrogen,
Carbonic Acid.

Solid Contents.

Sulphate of Magnesia,
Muriate of Soda,
Sulphate of Lime,
Muriate of Lime,
Carbonate of Lime.

"The temperature of the small spring of common water adjacent to Sulphur Spring number two, we found to be 48° F."

So far as the resemblance holds in the deposition of sulphur upon the bed of the stream, owing to the decomposition of the sulphuretted hydrogen gas, the Carroll White Sulphur Springs may be considered as very analogous to, if not identical in composition with the Virginia Spring of the same name; and similar action is anticipated by the reporters in the relief of disease.

"The distance from Baltimore to the Springs is about one hundred and nineteen miles; one hundred and fifteen or sixteen of which are on the present main route to Cumberland." A favourable feature in their locality is their proximity to the celebrated Bedford Springs.

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PLAGUE OF ATHENS.

Translated from the Greek of Thucydides,

BY H. F. CONDICT, M.D., WASHINGTON CITY, D. C.

It was during the first days of summer that the Peloponnesians,* and their allies in two divisions,† as on a former occasion, made an incursion into Attica, under the conduct of Archidamus,‡ son of Zeuxidamus, King of the Lacedemonians, and encamping, laid waste the country round. They had not been many days in Attica when a disease broke out among the Athenians first; such as was reported to have raged before in many places,§ as about Lemnos and other

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* The Peloponnesian war began in the 87th Olympiad, A.D. 3573; Ante J. C. 431.

† Archidamus marched into Attica at the head of 60,000 troops. The Athenian army consisted of about 30,000 troops and 300 galleys.

‡ Two-thirds of the troops marched to the Isthmus of Corinth, and the rest were left to guard the country. "Archidamus, King of Lacedemonia, who commanded the army, assembled the generals and chief officers, and calling up the remembrance of the great actions performed by their ancestors, and those they themselves had done, he exhorted them to support, with the utmost efforts of their valour, the pristine glory of their respective cities, as well their own fame."—*Rollin's Hist.*

§ The five books of Moses are, by universal consent, the oldest records now extant. In the fifth book of Exodus, pestilence is mentioned as a great calamity. Of famine, sword, and pestilence, we are told that David chose the last mentioned. Pestilence is mentioned in Jeremiah, Ezekiel, 1 Samuel, 5th and 6th ch., Numbers, 11th ch., Deuteronomy, 28th ch., Amos, 4th and 10th ch. Homer contains an allusion to pestilence :—

"On mules and dogs the infection first began,
And last, the vengeful arrows fell on man."

Ovid gives an affecting account of a terrible pestilence that depopulated the island of Ægina in the reign of Æacus, grandfather of Achilles, sixty years before the Trojan war. The disease first seized birds and quadrupeds, and then man. Death was sudden, and the streets covered with carcases. The next occurrence of pestilence was in Rome, in the 16th year from its foundation, and 738 years before the Christian era. Even the trees are said to have been destroyed by its deadly influence. In the year of Rome 46, during the reign of Numa Pompilius, Italy was afflicted with pestilence,—again in the reign of Tullus Hostilius, 640 years before Christ,—and in the reign of Tarquin, the last king of Rome, 514 years before Christ, A.R. 261,—also A.R. 281. There was a terrible pestilence A.R. 290, and before Christ 464. Livy, speaking of it, says—"Grave tempus et forte, annus pestilens erat urbi, agrisque, nec hominibus magis, quam pecori, et auxere vim morbi, pecoribus, agrestibusque, in urbem acceptis. Ea colluvio mixtorum omnis generis animantium, et odore insolito urbanos; et agrestem confertum in arcta tecta, æstu ac vigiliis angebat, ministeria que in vicem ac contagio ipsa vulgabant morbos."—*Webster on Pest.*

The next plague occurred in 300 of Rome, and during the absence of ambassadors to regions. A pestilence so terrific—a mortality* so dreadful was without a parallel in the memory of man. Neither medical skill, nor any other human art, was sufficient to arrest its progress; for physicians,† applying their remedies without any knowledge of the disease, fell more certain victims from their constant exposure to the contagion. Whatever supplications they raised in the temples, or whatever oracles they consulted, and the like, all were vain and insignificant. From all such expedients they at length desisted, overpowered by so terrible a calamity. It is said to have commenced in that part of Ethiopia which borders upon Egypt: descending afterwards into Egypt and Lybia, it spread its ravages over the greater part of the king's dominions. All of a sudden it burst like a flood upon the city of the Athenians, and its attack was at first confined to the Piræus, so that they accused their enemies with having poisoned their wells, for as yet there were no fountains in that part of the city. At length it advanced into the upper city, and now its mortality greatly increased. Let any one then, whether physician or other, declare respecting it what he knows—whence it is likely to have arisen,—and the causes, in his opinion, sufficient to produce so great a revolution. Having had an attack myself, and seen others who suffered from it, I will lay open its nature and symptoms, which may serve to instruct others in case of its recurrence.

That very year, more than any preceding one, had been, by universal consent, remarkable for its exemption from common disorders. Whatever incidental affections existed, were sure to assume the character of this. Men who had no

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collect the laws of Solon. In the year of Rome 317, and B.C. 437, commenced a plague that continued five seasons. Two years posterior to this occurred the plague of Athens, so solemnly portrayed by the pen of the greatest of historians, Thucydides.

* By the plague that raged in Moscow 1771, seventy thousand inhabitants were cut off in a few months, and twelve thousand in twenty-four hours.

† The plague had committed dreadful ravages in Persia previously to its breaking out in Attica. Hippocrates, who at this period was at the height of his glory, was addressed by Artaxerxes, with a view of procuring the services of that famous physician. The inducements offered by that haughty monarch were the most unbounded emoluments, titles, and honours. The heart of Hippocrates proved incorruptible to all the glitter of Persian dignities and opulence. The moral grandeur of his reply on this occasion is worthy of notice. "Wants or desires," said he, "I have none, and as to my services, they are due to my citizens and fellow-countrymen." Kings are not with impunity to be slighted. Artaxerxes instantly demanded of the inhabitants of Cos to deliver up that insolent wretch for immediate punishment, adding, that in case of refusal, their city should be rased to the ground, and not a vestige be left behind. Sharing with their great physician in true nobleness of soul, they replied that Artaxerxes's threats would prove as impotent and unavailing as did the menaces of Darius and Xerxes, and on the gods they relied for protection. Upon the plague breaking out in Athens Hippocrates was sent for. He promptly obeyed the call, and never once left the city till the disease had subsided. His devotion to the sick was constant and unremitting. Generous services rarely pass unrequited. The Athenians, to evince the profoundest sense of gratitude for the exertions of Hippocrates, ordained by a public decree, that he should be initiated in the most exalted mysteries, in the same manner as Hercules, the son of Jupiter—that a crown of gold be presented him; and he be maintained, the residue of his life, in the prytaneum at the public expense—that the children of the people of Cos that had given birth to so great a man be supported and brought up in Athens, in the same manner as if they had been born there. —*Rollin's Hist.*

previous symptom[*] or indication of fever, but all at once, in a state of perfect health, were first seized with violent burnings in the head, and redness and inflammation of the eyes, which quickly spread to the throat and tongue, accompanied with a foul and fetid breath. To these symptoms succeeded sneezing and hoarseness, and in a little time a difficult and laborious respiration, attended with violent coughing. Fixing itself on the stomach, it made dreadful havoc of that organ, giving rise to all those bilious evacuations mentioned by medical writers, and to great prostration. The greater number were afflicted with a dry hiccough, which brought on violent spasms, that in some cases were of short, in others of long continuance. The surface of the body was to the touch not very hot; nor of a pallid hue, but reddish and livid, with an efflorescence of minute vesicles[†] and ulcers. Yet such was the degree of internal heat, that the lightest clothing and finest linen were burthensome; and indeed, no situation was tolerable but that of nakedness; and they longed for nothing so much as to be plunging into cold water. Many who were without attendants, hurried on by an unquenchable thirst, precipitated themselves headlong into the cisterns. It mattered not whether they drank much or little, such was the inward heat; and the utter inability to compose themselves by sleep, and a perpetual restlessness, were never absent for a moment. And when the disease had reached its height, the body was not observed to have wasted away, but on the contrary to have sustained itself against its ravages beyond expectation; so that on the ninth,[‡] or even the seventh day, the greater part perished, while yet in the possession of some strength: or if they escaped that period, the disease, passing down into the abdomen, occasioned there so great a degree of ulceration, or so violent a diarrhœa, that many at last died of mere debility. The disease having begun in the head, spreads its ravages downward through every part of the body. If any survived its more violent stages, it continued to show its severity by the manner in which it affected the extremities; for it assailed the pudenda, the fingers, and toes. Some escaped with the loss of those parts; some with the loss of eyes; while others on recovery were seized with an indiscriminate forgetfulness of every thing, and knew neither themselves nor their most intimate friends. It is not in the power of language to portray the aspect of this awful scourge, and the horror that shrouded every feature, presenting a spectacle beyond human endurance, and clearly demonstrating it to be something more than an ordinary disease: for birds of prey and quadrupeds that feed on human flesh refused to approach the heaps of dead bodies that lay unburied about; or if they ventured to taste, they were sure to perish. This was evident from the obvious scarcity of such animals, for they were neither to be seen hovering about a dead body, nor any where else. The dogs, from their familiarity with man, afforded a more notorious proof of this event.

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[*] The distinguishing characters of plague, according to Dr. Good, are—Tumours bubonous, carbuncular, or both, appearing at an uncertain time of the disease; eyes with a muddy glistening; fever, a malignant typhus, with extreme internal heat and debility; contagious. He makes three varieties:—Fructifera, infructifera, and erythematica. All these sometimes coexist, as in the Aleppo plague in 1660. In the Barbary plague, 1799, the two first were intermixed, while the last was absent. In the Moscow plague, 1771, the last was absent. In the London plague the three species occasionally occurred, the first and second most frequently. The first and second appeared in the plague of Noya, 1815.

[†] There being no mention made by Thucydides of buboes, has induced some to think that the Athenian disorder was only small-pox. Haller and Hildebrand regarded it as only a malignant typhus.

[‡] In the plague of Moscow they died on or before the sixth day: if they reached the seventh they were sure to recover.

Such is a general account of this disease, in which many circumstances are omitted of an extraordinary character, for no two individuals were affected precisely alike. All the accustomed sources of trouble* and affliction disappeared, or were merged in the present overwhelming calamity. Some perished for want of care, while others died with the best possible attendance. No remedy was discovered that could afford the least relief. What alleviated some, only aggravated the sufferings of others. No peculiarity of constitution, whether strong or weak, was sufficient to resist its violence; but all were consigned to one common ruin, despite the best attendance, regimen, or diet. The most appalling circumstance was the consternation and dismay that ensued on one first fancying himself attacked, (for, abandoning himself at once to despair, he was disarmed of all power of resistance,) and the sight of so many dropping off like sheep that catch, from contact with each other,† the infectious poison. This last circumstance tended greatly to increase the general havoc; for those whose friends were deterred by a sense of fear from visiting them, were left to expire alone, and many houses became desolated for want of needful attendance. Those who did not withhold their services, caught the contagion, and perished. Such especially was the fate of those who thought themselves entitled to some reputation for character and firmness. These, impelled by a sense of honour or duty, and regardless of their own safety, repaired to the bedside of their friends, when even those of the same household, overpowered at length by the terrific character of the disease, were forced to turn from the groans and lamentations of the dying. Those who had emerged in safety from these frightful dangers, were moved with sympathy for the distressed and dying, because they knew by experience what the disease was, and by reason of their present state of security, for a second attack never proved fatal. Happy they were esteemed in their present transports, and were animated by the consoling hope of future exemption from other maladies.

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* "Sources of trouble and affliction." This passage has usually been made to convey the following meaning, from which I have ventured to dissent. "There prevailed none of the ordinary diseases of the season: but if there happened to be any, they terminated in this." It appears to me that our author would not so soon have repeated what he had above affirmed. Besides, he here begins to portray the moral effects of that terrible disorder; and, in this view, what sentiment more natural than the one I have preferred.

† The principal means of taking the disease is by contact or absorption by the skin. Whatever stops up the cutaneous absorbents proves a great security. Oil is said to do this most effectually. Sir Brooke Falkner, physician to the forces at Malta in 1813, affirms, that the military attendants were preserved by wearing a dress of *oiled* silk. It is asserted by Mr. Baldwin of Cairo, that among upwards of a million of inhabitants carried off by the plague in Upper and Lower Egypt during the space of four years, not a single dealer in oil had fallen a victim to it. During the prevalence of the plague of London, 1665, the trades chiefly exempted were those of oilmen, fishmongers, tanners, bargemen, and watermen; while those most liable to infection, are bakers, cooks, and smiths, whose skin is kept in a state of perpetual irritation.

What augmented the general distress was the confusion and disorder occasioned by crowds of country* people pouring into the city with their effects; but more grievously did this affect such as had just arrived; for these, having neither dwelling places nor a shelter, and crammed together in smothering cabins, the pestilence raged in the wildest fury and disorder. The dead and the dying lay together in promiscuous heaps; the dead strewed upon the dying, and the dying upon the dead. They were to be seen dragging their almost lifeless bodies through the streets, and about every fountain, consumed by inward fires. The temples, in which they had pitched their tents, were crowded with the dead and the dying. The disease, raging more and more, and its victims goaded on to despair, all things sacred and profane were alike disregarded. The regulations formerly observed in burying the dead, were now neglected. Each buried his dead as best he could. Many, whose places of interment had been crowded with the dead bodies of their friends, shamelessly resorted to the graves of strangers. Some anticipated those who had erected funeral piles in burying their dead upon them; while others, bearing dead bodies to a funeral pile already on fire, threw them down and hastened away.

The disease gave birth to a degree of licentiousness before unknown at Athens. Any one easily dared to do openly what before he only did covertly. When they beheld the sudden reverse in men's fortunes—when they saw the rich dying, and their wealth pouring on the poor and necessitous, many becoming rich to day who yesterday had nothing; they determined to make the most of their brief existence, in procuring for themselves pleasure and enjoyment, persuaded that their bodies and their wealth were but of a day's continuance. No one was anxious to devise any schemes of future emolument, deeming it uncertain whether life would last till they should be realised. He seized upon whatever he thought would contribute to his pleasure and profit. Neither the fear of the gods, nor the laws of society, deterred them from their lawless indulgences: the former they disregarded, since they saw the good and the bad dying without distinction; and the latter they had no reason to fear, even should life be prolonged till justice might be applied,—especially when they were conscious that a greater punishment, already decreed, hung over them, and that it was reasonable they should have some enjoyment of life before its execution. Such were the sufferings that oppressed the Athenians on every side. The city within presented the spectacle of the dead and the dying; and the country round exhibited one wide-spread scene of havoc and desolation. The disease began its ravages as soon as the Peloponnesians made an irruption: but in Peloponnesus itself, its spread was not worth mentioning. It spent its strength chiefly upon Athens: afterwards it devastated the most populous portions of other countries. Such are the particulars relative to the disease.

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* The passage already cited from Livy has been thought to have been in imitation of this. The city was not only filled with people, but crammed with whatever they could bring with them from the expected devastation of the Lacedemonians. Some even brought with them the timber of their houses.

exudation of lymph, in which they are imbedded in the substance of the uterus. Commonly, also, there is an infiltration of lymph or pus between the peritoneal covering of the uterus and the sub-peritoneal cellular tissue, which has either an uniform gelatinous appearance, or there are several cavities of variable size containing pus. But in the veins and cellular tissue there is frequently instead of pus, a dirty-coloured, stinking sanious ichor (jauche) (phlebitis septica). Together with these appearances in the veins and cellular tissue, the uterus is frequently found shrunk, its tissue compact, dense, and of pale colour, its inner surface little vascular; or, on the contrary, it is twice or more its natural size, its substance so soft as to be almost fluid, and containing much blood. The mucous membrane is also frequently inflamed, and appearances of peritonitis and ophoritis may be found, as these different forms of puerperal disease neither prevent nor cause the existence of each other.

These appearances of suppuration in the veins of the uterus are sufficient of themselves to account for the symptoms of any individual case; but they are not, especially after the disease has lasted some time, the sole morbid appearances, as we find other marks of disease caused by the primary affection of the uterine veins. Thus, after long duration of phlebitis, there is often inflammation of the substance of the uterus, with condensation of the parenchyma, in consequence of infiltration of lymph, and more particularly around those veins which are filled with pus. In these spots the texture is very friable, frequently tending to become fluid, or sloughing (verjauchend). This inflammation occurs more frequently at the neck than in other parts of the uterus; in some cases there is on one side of the cervix uteri a swelling the size of a pigeon's egg, which, when cut through, appears to be traversed by veins containing pus. One or other of the spermatic veins is often found simply dilated and filled with pus, or its parietes are already thickened, and the inner coat lined with a layer of lymph: the same thing, but much less frequently, may be formed in the vena cruralis. It is less uncommon, however, to find the same appearances in the lymphatics which accompany the spermatic veins, and then also there is generally pus in the lumbar glands corresponding to these vessels. Also the substance of one or both lungs may be pervaded by circumscribed spots of effused lymph or pus, which are found most commonly near the surface, and when seen through the pleura, have a reddish or pinky-white appearance. They are from the size of a millet seed to that of a hazel nut. (Pneumonia lobularis metastatica). They are compact, friable, of a yellowish tint, and often contain in their centre fluid pus. Less commonly these spots have not such defined limits, and run into a dirty black sanious ichor or slough (jauche), which has a peculiar gangrenous odour. (Pneumonia septica, gragræna pulmonum metastatica.) When such is the state of the lungs, we are sure to find similar ichorous matter in the uterine veins. Lymphatic and purulent infiltration occurs not unfrequently in the spleen, more rarely in the liver, and is of still rarer occurrence in the brain and kidneys; even in the heart and thyroid gland abscesses have frequently been found in these cases of metrophlebitis.

In the external as well as in the internal organs matter is often found. The parotid glands are frequently considerably swollen: upon laying them open, pus or ichorous matter trickles from them. Very frequently there is suppuration within the different joints of the extremities, and most commonly in the elbow or shoulder-joint. In like manner there may be infiltration of the subcutaneous cellular tissue, and that which surrounds the muscles; more frequently of the extremities than the trunk. This is indicated by a more or less hard and tense swelling, which in some cases extends over nearly half an extremity, but is generally less widely diffused. Upon cutting into it the subcutaneous, or intermuscular cellular tissue, is found filled with pus or ichor (jauche), both of which substances, in other but less common cases, pervade the muscular tissue, which is thus converted into a soft pultaceous mass.

Cause of the Disease.—Commonly on the second or third day after delivery, very rarely so late as in the third or fourth week, fever shows itself, sometimes preceded by shivering, sometimes not. Frequently at the same time pain of the abdomen is complained of, and upon examination the uterus is found to be the seat of this pain; it is often only upon examination that the patient feels pain, and sometimes no pain is felt under the hand. Both the pain and fever are frequently trifling; in other cases, however, they are very intense. The pulse also may be 140 or 150. The patient complains usually of headache, heat, and thirst. However, frequently, at the outset of the disease, the only symptom is increase of pulse, and if not sufficiently cautious in making a diagnosis, it is easy to confound the disease with orphoritis or peritonitis, which also may commence without marked pain, or with scarlatina puerperalis, or even the febris lactea: the latter mistake cannot last long. When thus phlebitis exists without local symptoms, it is only in its more advanced stage, and when the characteristic shiverings have taken place, that the diagnosis can be certain. Thus there may be for some days no other symptoms but fever and pain, and, indeed, pain is often altogether absent; but the existence of fever without any apparent cause must render us suspicious of latent mischief. The uterus is either large or small, hard or soft to the touch, the os uteri closed and not painful. The lochial discharge and milk continue to flow in the meanwhile well, the urine has no peculiarity of appearance, the skin is sufficiently moist, the appetite continues good, the countenance is as yet unaffected, the patient commonly without anxiety, and totally unaware of the existence of disease.

The further course of the disease now depends upon the supervention or not of peritonitis. In the first case the disease proceeds as peritonitis, the phlebitis recedes and disappears, as will be afterwards mentioned. Peritonitis supervenes more or less frequently upon phlebitis, according to the nature of the epidemic, phlebitis occurring at times quite alone, at others being constantly accompanied with peritonitis. When, however, phlebitis exists alone, there may be after some days, diminution of pain and fever, followed by their entire disappearance; or, the pain ceases and the fever continues, the appearance of the patient being as yet little changed; in the meanwhile the formation of pus in the veins proceeds rapidly, and the sudden occurrence of a more or less severe shivering fit, followed by great heat, alarms both patient and physician. A second and third shivering fit soon succeed the first, and the accuracy of the diagnosis is established. Not, however, that the shivering indicates the first commencement of suppuration in the veins; this may take place without any shivering, but the entrance of the pus into the general circulation appears to cause these phenomena of fever, by which the blood endeavours to free itself from the contamination.

There are few symptoms of disease which so decidedly confirm both diagnosis and prognosis as these shivering fits. Thus many a woman in childbed begins first on the tenth or twelfth day to become feverish, often still later; and were she not in childbed, one might infer the existence of febris gastrica rheumatica, or catarrhosa, but in such a patient all fever is suspicious. The characteristic shiverings, however, indicate only too soon the true cause of the fever. Generally there is no regularity as to the period of the occurrence of the paroxysm, so that often for a whole day there is an entire intermission, and then two or three occur in twenty-four hours; and again in other cases (which are less common), the symptoms have a true intermittent type. Such cases seem to have given rise to the denomination of febris intermittens puerperarum perniciosa. When the severe shiverings have once occurred, the disease proceeds uninterruptedly, with the peculiar metastases which show themselves in dissection.

Of the metastases which occur internally, the greater number are hardly to be diagnosed. The more frequent and severe the paroxysms of fever [they commence often with a fearful shivering fit, which lasts fully an hour], the more extensive and intense are the different metastases. Thus inflammation of the lymphatics or veins may alone be suspected from the occurrence of these violent shivering fits, but metastases to the lungs, liver, or spleen, may also have taken place. The most easy of diagnosis is pneumonia lobularis. In some cases it is accompanied with bloody purulent expectoration and cough. That such small spots of hepatization escape detection both by percussion and auscultation, it is easy to understand. It is worthy of remark, that icterus and lobular hepatization frequently occur together.

The countenance of the patient, which at first was little affected, now denotes an important change—it sinks rapidly, and acquires an expression of deep suffering; there is a peculiar character of the features which might be termed the puerperal physiognomy, as a variety of the abdominal physiognomy.

Although it is difficult during the life of the patient to determine the existence of the internal metastases, those which occur externally are easy enough of recognition. The metastastic parotitis differs from the more common forms of inflammation of this gland, by the sudden appearance of a tense circumscribed swelling, after short duration of pain and redness, which rapidly increases, and goes on to suppuration. Patients complain frequently of severe pains in the limbs, which are increased by every attempt to move them. This depends upon metastastic inflammation having taken place within the articulations, or in the cellular tissue surrounding the capsular ligament of the joint. After distressing pains in the extremities, a more or less considerable swelling, with well-defined limits, appears, which is tense and exceedingly painful, at first of a bright red colour, afterwards becoming paler. This denotes infiltration of the subcutaneous or intermuscular cellular tissue. The slightest touch cannot be endured, and often half an extremity in this way affected. In less common cases the swelling begins gradually, becomes painful, of pale red colour, and after lasting some time disappears altogether. A great number of cases of the disease termed phlegmasia alba puerperarum appear to have been metastases of this description. The pain, the period of the appearance of swelling, its peculiarities, and the danger attending it—for these cases are almost constantly fatal—tend to confirm this supposition.

As a consequence of phlebitis a peculiar form of mania frequently occurs. It appears to be caused by the action of the blood, charged with pus, upon the brain, in the same manner that delirium potatorum results from the blood being charged with alcohol. This is preceded by much activity of the whole system of the patient; there is remarkable quickness of speech, &c. The attack of mania succeeds soon, and sometimes immediately, to these premonitory symptoms. The patients attempt constantly to escape, discourse in passionate terms of the most trival and unconnected circumstances, or dwell constantly upon some particular incident or idea which has occurred to them during the last hours of sanity. They are sometimes furious, at other times the mania is of a gay character. The countenance is generally red and swollen, the looks wander, the pulse much quickened. Such paroxysms last commonly from five to six, rarely longer than ten to twelve hours. The patient either returns afterwards to entire consciousness, or lies, from exhaustion, in a half stupified state, from which it is difficult to rouse her. The attack rarely recurs. Upon examination increased vascularity within the cranium is all that can be found.

It often happens in cases of phlebitis, during the last days of its course, that there is a peculiar icteric discolouration of the skin and tunica albuginea. The yellow colour in these cases is exceedingly intense. Its first appearance is after the frequent occurrence of shivering fits, and it becomes more intense after each successive shivering fit. This symptom also appears to depend upon a diseased state of the blood; at least as yet nothing abnormal has been found either in the liver or biliary ducts; but lobular hepatization of the lungs almost constantly coexists. Thus one or more metastases having taken place, the shivering fits recur with shorter or longer intervals, and the patient sinks with the symptoms of acute hectic fever. Some certainly do recover even when a metastases has occurred, and this disappears during convalescence.

Prognosis.—The prognosis is generally unfavourable; even in the mildest forms of the disease the proportion of deaths is great, and in the worst epidemics four fifths of the cases die. The more violent the outset of the disease, the worse the prognosis. When fever precedes the pain, the prognosis is more unfavourable than when the contrary occurs. Disappearance of the pain, with continuance, and perhaps increase of the fever, is a very bad symptom. Cessation of the fever, even when pain in the uterus remains, is of much better import. Frequent recurrence of the characteristic shivering fits gives a very unfavourable prognosis, and equally unfavourable is the occurrence of metastasis, especially when to the forearm. One of the worst symptoms is jaundice.

Treatment of Phlebitis.—Phlebitis, as a very dangerous and deep-seated form of inflammation, requires antiphlogistic treatment; and that this be efficient, it is necessary that both generally and locally it should be actively employed. We must endeavour to cut short the disease as soon as possible; for when this is not accomplished in the first few hours, it is for the most part not to be afterwards effected. With the exception of those cases in which from the first all the functions are at so low an ebb that the worst consequences must be anticipated, full venesection should not be omitted. Locally the assiduous application of ice is frequently the only remedy which can check the progress of the inflammation. Leeches act in these cases, in consequence of the deep seat of the inflammation, only in proportion to the quantity of blood which they abstract. With a view to cause a derivation to the intestinal canal, calomel and jalap (the latter in doses of a scruple or half a drachm) are preferable to all other purgatives. When these remedies, employed either together or separately, according to the degree of inflammation and its duration, do not arrest its progress, and the characteristic shivering fits occur, all rational treatment is unhappily at an end, and the attention of the practitioner must then be directed towards the alleviation of symptoms and the local treatment of metastases. The truly fearful shivering fits can in no wise be prevented. Bark is quite inefficient for this purpose, and generally augments the fever when it is retained on the stomach. The internal metastases are not less out of the reach of treatment than of diagnosis. The violent pains which accompany metastases to the cellular tissue, or into the articulations, are most relieved by the application of unguentum opii. Also the mania puerperalis is most easily tranquilized by opium. Venesection and leeches are generally of no avail. When the disease is drawing towards its fatal termination, opium is the only remedy which is efficient in procuring tranquillity both of body and mind, and in such cases which set all curative treatment at defiance, it is a most valuable resource to the practitioner.

Inflammation of the Mucous Membrane of the Uterus.

Dissection shows us—1st. A layer of grayish plastic exudation of lymph on the mucous membrane of the uterus, which is sometimes a line in thickness, and with difficulty separated: it is either spread over the whole surface of the membrane, or more commonly attached only to certain parts, and most frequently to the neck; the uterus is also found in various states of disorganization, and traces of phlebitis, or some other fatal form of puerperal disease, are likewise present. 2dly. A dirty brown or blackish glutinous or fluid exudation, which has a peculiar gangrenous odour, (inflammatio septica): the uterus is considerably enlarged, frequently appears of a brown-red colour through its peritoneal covering; its texture is soft, easily torn, and as if soaked with much uncoagulated blood.

Inflammation of the mucous membrane of the uterus is one of the most common forms, but occurs rarely alone when neither epidemic nor endemic causes favour the development of the septic character of the disease; when this is the case, however, it may be very prevalent. Those epidemics which have been attributed to putrescence of the uterus were in reality a septic inflammation of the mucous membrane.

When it appears combined with phlebitis and peritonitis, it is not possible to make a decided diagnosis, if the inflammation be not of the septic character; in which case the nature of the discharge is sufficiently characteristic. When it occurs alone, the symptoms are as follows:—Generally two days after delivery, there is slight fever without any pain, or with dull pain in the region of the uterus; the lochia are not bloody, but serous, and scanty; the os and cervix uteri rarely painful; the patients are hardly aware that they are ill. These symptoms continuing for some days without manifest increase, the fever becomes lessened, the lochial discharge more considerable, generally containing purulent mucus, and convalescence commences on the fourth or fifth day. In other cases the fever and pain increase, the lochia disappear almost entirely, in consequence of the extension of the inflammation, and phlebitis or peritonitis generally supervene, and modify the further course of the disease; or in some cases diaphoresis occurs, and the uterus expels, with a contraction like that which takes place in labour, coagulated and fatty-like lymph, which is frequently repeated; the result of which is decided improvement, and rapid recovery follows.

Very different are the symptoms and course of the disease when the inflammation is of a septic character. The fever is from the first much more violent; the pulse small and contracted, from 140 to 160 in the minute; the patient very restless and anxious; complains of great heat and thirst, and excessive weariness; the perspiration is suppressed, and skin dry and hot; the uterus remains large, compressible, not painful, unless strong pressure be made upon it; the os uteri gaping, hot, very tender to the touch; the lochia are dirty, bloody, discoloured, of a bad smell. The course of the disease is often very rapid. The different symptoms increase, the features become nearly cadaverous, the patients lie in a restless but half stupified state; the abdomen is distended, but not painful; the uterus so soft and compressible, that it is often difficult to ascertain its size; it bears pressure in every direction; the lochia have the characteristic smell of gangrene, are of a dirty black colour, and if the finger be introduced it brings away a similar stinking slimy fluid, mixed with broken-down membrane. This state of things does not often last long; generally on the third or fourth day the patient falls into a state of sopor or muttering delirium, and gradually sinks. In particular mild cases, in which, although they bear a certain resemblance to the above description, the fever, weariness, and change of countenance, are not so marked, and the septic inflammation has affected only the lower portion of the uterus, separation of the gangrenous part ensues, followed by suppuration and cure. In such cases, however, the cervix uteri is frequently detached from the body, or there is obliteration of the os uteri by adhesion, or a rupture into the bladder or urethra takes place, and fistulæ are produced, which are exceedingly difficult or impossible to heal.

Prognosis.—Generally speaking, this form of the disease is the least formidable; but, however, when the prevailing form of the epidemic, the prognosis is unfavourable. A gangrenous smell of the lochia and gaping os uteri are not of much importance in determining the prognosis; but a pulse of 140 or more, with an altered expression of countenance, either from the first, or occurring during the progress of the disease, give a bad prognosis. When the uterus is so large and soft that its volume cannot be ascertained, the worst is to be expected.

Treatment.—When the dilute mineral acids and solution of chlorine have been employed internally and externally, as injections and lotions, without avail, bark, camphor, and vinous preparations, will be equally useless.

Inflammation of the Ovaria.

Morbid appearances.—One or both ovaries are surrounded by numerous flakes of lymph, or coated with a solid layer of lymph, and more or less strongly attached by it to the neighbouring parts. Their peritoneal covering is generally pervaded by injected capillary vessels, of a bright red colour. The inflamed ovary is enlarged, its texture very soft, friable, and contains much infiltrated lymph or serum. There may be also one or more abscesses, of the size of a linseed to that of a bean, in the substance of the ovary; its lymphatics also are generally distended with pus; or, instead of pus, the same sanious ichor as in metro-phlebitis may be contained both in the substance of the ovary and the lymphatic vessels. When the ophoritis has been acute, some veins of the broad ligaments, or of the uterus itself, will be found to contain pus. It is much more common to find pus in the lymphatics leading to the lumbar glands, and in the glands themselves, in this disease, than in metro-phlebitis.

Course of the disease.—Inflammation of the ovaries is one of the most obscure, and at the same time most dangerous, diseases of the puerperal state. There is rarely any deep-seated pain in the pelvis posterior to the uterus; generally violent continued fever, without any discoverable local affection, is the only apparent symptom. The fever continues many days, even more than a week, in the same degree of intensity; the milk and lochia flow as usual, and the patient complains but little. Suddenly, however, great confusion of ideas occurs, and in the course of a few hours the patient is moribund.

The absence of all other symptoms during the progress of the disease should lead us to look for inflammation of the ovaries, especially when death has occurred suddenly; for peritonitis, phlebitis, and plastic inflammation of the mucous membrane, when not sufficiently acute to produce local symptoms, are not so rapid in their progress to a fatal termination; septic inflammation, moreover, is characterised by the lochial discharge. As in the greater number of cases it is not possible to form a certain diagnosis, little can be said as to the comparative frequency of recovery in these cases. But as many patients who have no other symptom than fever of several days' duration do recover, and in only a portion of those who die is ophoritis to be found, it may with some probability be deduced, that a certain number of those who recover have had ophoritis; and this must be our conclusion until our diagnosis becomes more precise.

Prognosis.—When there is no peritonitis, or other marked form of puerperal disease, the fever must determine the prognosis; and fever is always a suspicious symptom in the puerperal state, especially when of some duration, and when no local affection is to be discovered. When coma or delirium supervenes, death is not far distant. Besides, however, the immediate danger attending the disease, manifold are the sequelæ of inflammation of the ovaries.

Treatment.—The difficulty of diagnosis, and facility of confounding this with other and less dangerous forms of puerperal disease, are not of so much consequence, as we have as yet no specific treatment for the different varieties of the disease. Thus in the more acute cases, whether or not the existence of ophoritis be quite certain, active antiphlogistic treatment is necessary; in less acute cases a more negative mode of treatment may be adopted. General and local blood-letting, combined with the exhibition of calomel, are the means which experience point out.

Inflammation of the Peritoneum.

Morbid appearances.—Immediately on opening the greatly dilated abdomen, the intestines, which are frequently distended to three times their natural volume, escape forcibly from the incision. The diaphragm is commonly pushed upwards, and the liver with it; in some cases they can be found as high as the fourth or even the third rib. When the abdomen is freely opened the exudation shows itself, consisting principally of lymph or serum. In most cases there are many pounds of a thick yellow fluid, the colour of which may, however, vary from an orange to a greenish or brown tint, which, when the proportion of the serum to the lymph is small, is proportionably thick; in other cases the serum contains flakes of lymph, of variable quantity and size. Frequently the exudation has a truly gangrenous smell, is dirty and discoloured, and contains very few flakes of lymph (peritonitis septica).

When the exudation consists principally of lymph, it is found covering and deposited between the different abdominal viscera, of a lemon or straw colour, semi-liquid and lumpy from the mixture of serum, or mixed with blood, of a reddish-yellow colour, and purulent. It may also be nearly solid, and covering the different organs, more especially the uterus and ovaries, liver and spleen, with a layer of lymph, which is sometimes easily separable, but in other cases is so tenacious, that it is only with difficulty to be detached from these organs in the form of filamentous strips. Between the serous exudation, containing but few flakes of lymph, and that which consists of layers of lymph of firm consistence, there are many intermediate states, the peculiarities of which depend partly upon the original quantity and quality of the effusion, and partly upon the duration of the disease and the commencement of reabsorption.

On the peritoneal lining of the anterior abdominal parietes, and in the various prolongations of this membrane, especially those which envelop the uterus, the tubes and ovaries, and neighbouring portion of intestine, are many spots of fine capillary injection, more or less thickly scattered; and the comparative abundance of them has reference more to the nature than the quantity of exudation. Thus they are more numerous and more extensive when the effusion consists of lymph mixed with pus, than when principally serum containing flakes of lymph. When there is a tendency to a septic character, there are few such spots of injected vessels. Those portions of the intestinal canal which are sometimes found distended to three times their natural volume, consist chiefly of colon; the ileum is much less frequently in this state. The peritoneal covering of these portions of intestine is very vascular, and this is the more evident from the thickening of their muscular coat, and œdematous state of the mucous membrane. In some rare cases a plastic exudation is found upon the mucous membrane. The vessels of the omentum are much injected; and newly formed vessels in the effused lymph occur in different parts of this membrane, more especially those which are situated over the uterus.

When the exudation is partial, the effused fluid is rarely found between the convolutions of intestine; much more commonly between these and some other organ, and especially between the uterus and neighbouring portion of intestine, and is thus contained in a separate cavity, the parietes of which are formed by these organs. This exudation is of variable quality: when the disease has lasted from eight to twelve days, the fluid is mixed with much lymph, which is easily separated from the parietes of the cavity; but after a longer duration of inflammation, the quantity of fluid is much diminished, the sac containing it becomes smaller, and filamentous or membraniform adhesions are formed between the different organs.

In many individuals who, during convalescence from peritonitis, die in consequence of a relapse, dissection clearly shows the various ages of the exudation. In three cases there has been rupture or disturbance of one of these sacs during the process of healing, which has occasioned an attack of acute peritonitis. Combined with the appearance of peritonitis, there are generally traces of the other forms of puerperal disease to be met with, which are either older, or more recent, or of simultaneous production with the peritonitis; and this can in most cases be determined with tolerable certainty.

One finds in most epidemics, and generally in a great proportion of cases, besides the marks of peritonitis, also those of pleurisy, of pericarditis, or meningitis. Pleurisy is of the most common occurrence. The pleura pulmonalis is either covered with a thin glutinous layer of lymph, or between the pleura pulmonalis and costal pleura there is a variable quantity of coagulated lymph. This effusion into the cavity of the chest is as variable, both in quality and quantity, as that which is met with in the abdominal cavity. The lungs are in most cases compressed, their texture dense, and void of air and blood.

In pericarditis, which occurs much more rarely, there is a turbid yellow or reddish serum, containing flakes of lymph in the sac of the pericardium: the inner surface of the membrane is lined with an exudation of variable thickness and consistence.

More frequently a thin yellow exudation is found in the dura mater, or between it and the inner membranes; in some cases, also, a large quantity of turbid serum in the lateral ventricles.

Course of the disease.—After the occurrence of a shivering fit, often also without, and generally but a few days after delivery, the patient begins to be feverish, and has pain in the abdomen, for the most part confined to the uterine region, which is constant, and augmented by deep inspiration, moving in bed, or by examination with the hand; or it is only felt in consequence of these different exciting causes. Often there is fever without pain; and in such cases the absence of pain may continue during the whole course of the disease. When the pain is violent, the fever is also considerable. The pain is often so intense that the application of the hand cannot be endured; and this excessive sensibility is generally extended beyond the uterine region, over the abdomen. The lochia, milk, and functions of the skin, continue unaffected; the urine is fiery red, and the bowels almost always constipated. The uterus generally remains high in the abdomen, is large, hard, and very tender on its whole surface; generally in the early part of the disease, the abdomen is not distended, except in very acute cases, and percussion gives a full sound over the whole abdominal surface. The further progress of the disease is always rapid. In some cases (but rarely, however) there is a sudden amelioration of the symptoms, insomuch so, that after twenty-four or forty-eight hours, the danger is much diminished, and in three or four days convalescence is established.

In the greater number of cases, however, the acuteness of the pain continues and increases; the abdomen becomes much distended, the respiration difficult, short, and high; the pulse is 150, or more; the features have a peculiarly anxious expression, and effusion into the abdominal cavity takes place. This continues commonly rapidly, and in the space of five or six hours there are as many pounds of effusion. The belly is still more distended, and has a doughy feel; and from the presence of a quantity of fluid, the posterior part of the abdominal parietes, in the space between the false ribs and pelvis, affords a dull sound on percussion, and as the quantity of exudation increases this dulness of sound extends over a larger surface of the abdomen. By pressing quickly and repeatedly on the abdomen, so as to shake its parietes, it is very possible, by the extension of this motion to the effused fluid, to cause a splashing sound, and thus indicate its presence: for this purpose it is necessary that the quantity of exudation be great, and there still remains a source of error, for if there be much fluid contained in the intestines the same sound will be produced. The discovery of the effusion in many cases which begin suddenly with fever, is of use in forming a diagnosis, as it is certain that peritonitis puerperalis, as well as the other forms of puerperal disease, can take place without any marked pain.

In most cases, after effusion has taken place, the fever continues in the same degree, although the pain diminishes, and in some cases ceases altogether; in others, on the contrary, it is augmented. The belly becomes still more distended, and the difficulty of respiration amounts almost to suffocation; the countenance is much changed. At this period of the disease there is often an appearance of scattered spots, the size of a pin's head, on the chest and abdomen, which are of a deeper red than the surrounding skin, and are afterwards converted into small white vesicles, filled with a purulent fluid (miliaria puerperalia alba et rubra*).

There is generally frequent vomiting of a peculiar, dirty, verdigris-coloured fluid, mixed with slimy matter, which is characteristic of effusion in the cavity of the abdomen; the ingesta are all rejected. The patient retains her full consciousness at this stage of the disease, and complains of the troublesome vomiting and weariness.

Under these circumstances, death takes place sometimes a few hours after the characteristic vomiting has commenced, when the disease has lasted but thirty hours; other patients lie in a state of torpor, with the respiration labouring, high, and short, their extremities becoming repeatedly cold, and although every hour death seems to be approaching, they may remain five or six days in this moribund state. The vomiting in some cases ceases entirely, in others it continues, but, instead of the peculiar verdigris-coloured matter, it consists of a dirty brown fluid, having a faint smell, and which at last becomes black (a symptom of softening of the stomach). Sometimes, but rarely, there is vomiting of liquid fæces (ileus, caused by the great distension of the intestines). A fatal termination is not constant, however; even when the effusion is very copious, recovery may take place.

This happens generally with great increase of some one of the secretions. There is rarely a critical sweat; more commonly diarrhœa, or copious secretion of urine. When the latter secretion begins to be affected, it is at first scanty, thick, and very red, little increased in quantity. After some days, much thick purulent sediment (frequently a third of the whole quantity of fluid) is deposited; the quantity of urine suddenly becomes very copious, from eight to ten pounds daily, and it is then quite clear, colourless, and without sediment. This may continue for seven or eight days. Frequent watery stools generally cause great fatigue, but this never happens from increased action of the kidneys; also when the discharge takes place from the intestinal canal, the exudation is more slowly reabsorbed than when it is accompanied with increase of the urinary secretion. In some cases the fever ceases entirely a few days after the exudation has taken place; but the abdomen remains large, there is a dull sound on percussion, the pulse becomes slow, the face swollen, pasty, the urine is scanty, and a hydrops anasarca is developed, which generally leads to a favourable termination, although frequently after the lapse of many weeks.

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* These vesicles are generally distinct; sometimes, however, they occur in very dense groups, and in some cases portions of skin, the size of a dollar, are covered with confluent miliary vesicles; the individuality of the different vesicles being so completely lost that the spot has much more the appearance of a lichenous eruption; but the existence of less confluent groups, and of others, in which, although the vesicles are placed very close, no confluence has taken place, destroy all doubt as to the nature of the rash.

A peculiar form of erysipelas, resembling much the purulent infiltration of the cellular tissue which takes place in phlebitis, may accompany puerperal peritonitis. A portion of integument, the size of the palm of the hand, and generally situated over a joint, becomes of a deep-red colour, very tender to the touch or on motion of the subjacent muscles: it is hot and tense; not so hard, however, as from metastatic infiltration of pus, as in this case there is serous infiltration of the cellular membrane. The pain generally diminishes towards the second day, the other symptoms gradually disappear, and frequently in three or four days all traces of it vanish. Soon afterwards, even before the first has entirely subsided, the same thing appears in another spot, generally corresponding to the first—viz. in the same part of the right extremity which was first attacked in the left: this is succeeded by a third attack, and others follow successively. This form of erysipelas occurs rarely, but generally in cases which recover.

When the exudation is partial, recovery often happens; and then the fluid being reabsorbed, the walls of the sac contract, and in proportion to the quantity of the effused lymph and the rapidity of the absorption, are more or less firmly united. When this process has commenced, there remains for a long time after the cessation of fever, pain in the uterine region, confined to a particular spot, which is hard and swollen, and some rare traces of fluctuation can be detected. The absorption requires generally from five to six weeks for its accomplishment, and during this time there are repeated but slight attacks of fever. The urine at the same time generally deposites a heavy purulent sediment; and the diminution of the swelling, hardness, and pain, is proportionate to the quantity of this sediment.

Prognosis.—This is generally unfavourable, but is on the whole better than in phlebitis, and cure is more frequently effected than in that of disease. The prognosis is especially bad when the prevailing character of the epidemic is a tendency to a rapid, copious, and quickly fatal exudation. The violence of the attack, or existence of fever without pain, is by no means so suspicious as in phlebitis. The quantity of exudation does not much affect the prognosis. When fever and pain cease after abundant effusion, the prognosis is considerably improved, and the contrary when they continue. Fever without pain, and exudation followed by diminution or cessation of the fever, give a good prognosis. When fever precedes the symptoms of peritonitis several days, and is increased upon their appearance, the prognosis is decidedly bad. Sinking of the countenance and cold extremities are bad. Vomiting of verdigris-coloured matter—a symptom equivalent to the serous vomiting in phlebitis—puts an end to all hope. The fæcal vomiting is also a very bad symptom.

Appearances of dropsy during convalescence are not alarming. A partial exudation leaves great reason for hope, when the patient's strength is not too much exhausted, and when extreme quiet is observed. The appearance of sediment in the urine is a very good sign.

Treatment.—The nature of the disease requires active antiphlogistic treatment, and it must be endeavoured to cut it short at its outset.

If the fever is considerable, and the pulse strong, even when local symptoms are wanting, a venesection of from 12 to 15 ounces is indicated (there is less to be apprehended from a too free than from a too timid employment of the lancet). When the pain is acute, 20 or 30 leeches should be applied over the region of the uterus, and then should be repeated if the pain continues. Joined to them, nothing moderates so quickly both pain and fever, the first almost immediately, as cold applications to the seat of pain; but they cannot always be endured. The principal indication, moreover, which in acute attacks should never be omitted, is the energetic employment of mercury, both internally and externally. Large doses of calomel, and the rubbing in of a sufficient quantity of unguentum mercuriale on the thighs and belly, are often of great service. Diarrhœa is seldom occasioned, and still more rarely salivation; but their evils are not to be weighed against those dangers which their exhibition may avert.

When exudation cannot be prevented, the further treatment must be guided by symptoms. When fever and pain gradually disappear, as in those cases which are attended with anasarca, the employment of cream of tartar, continued for a long time, is frequently the best means of exciting and keeping up the secretions of the intestinal canal and kidneys. When copious diarrhœa takes place after effusion, with relief of symptoms, it is very necessary to be careful that it does not become excessive, otherwise it may lead to a rapid sinking. In such cases it must if possible, be suppressed. Opium is here of little service: it is augmented by bark. However, rhatany and alum are very efficacious. When the inflammatory symptoms continue, even after effusion has taken place, local and general antiphlogistic treatment, according to its degree, are indicated. When the verdigris-coloured vomiting has once commenced, all rational treatment is at an end. Effervescing draughts and opium, in large doses, are most to be relied upon for the relief of this symptom. When there is amendment after partial effusion, very spare diet, remaining in bed, and complete quiet, both of body and mind, are quite necessary to effect a cure. An accidental chill, any vexation, or error in diet, may at once destroy all hope of recovery. Repose from the use of medicines is equally necessary: the stimulantia and roborantia are decidedly hurtful; nothing more than the local employment of mercury, in small doses, and a constant and unwearied application of emollient fomentations, should be permitted. When convalescence is established, the principal indication is nourishment in proper quantity.

Puerperal Scarlatina.

This is a form of puerperal disease which has been always overlooked or confounded with common scarlatina, but differs in many respects from that disease. Thus, 1st, Scarlatina puerperalis is not contagious; 2d, it appears always only three or four days after delivery, like the other puerperal diseases; 3d, it occurs frequently without any affection of the mucous membrane; 4th, there is no regularity in the succession of the fever and eruption, for they either occur simultaneously, or the erruption may precede the fever: the manner of the appearance of the rash is also different, as it shows itself at the same time in different parts of the body without any order; 5th, scarlatina puerperalis frequently appears only on particular parts of the body, which does not happen in common scarlatina; 6th, its more or less frequent occurrence does not seem to depend at all upon the prevalence of common scarlatina.

Hence it may be deduced, that it is a true disease of childbed; and there are sufficient grounds for including it among puerperal diseases.

Course of the disease.—Generally on the second or third day after delivery, there is a smart attack of fever, preceded by a well-marked cold stage. The pulse is very peculiar and characteristic, being exceedingly quick, hard, and full, and the skin very hot and dry. The patient complains of little else than heat and thirst; the lochia and milk continue as before. Often there occur trifling pains in the uterus, which commonly cease when the rash shows itself. Generally the day following the commencement of the fever, the whole surface of the body becomes of a purple colour; or sometimes this appears first on the extremities, sometimes on the chest. The fever continues undiminished, and in some cases the cervical glands are swollen and painful. Frequently, however, puerperal scarlatina is not accompanied with fever, or it may occur the day after the rash has shown itself. Sometimes the fever is trifling, and but a portion of the surface exhibits the exanthema; then the upper extremities alone, or the chest and one arm may be affected. Towards the close of the second or third day, the exanthema is commonly fully developed, and its colour is that of the most intense form of scarlatina. Frequently it is of a dark red, or bluish tint, like that of cyanosis; or in other cases it is very pale. In the milder cases the redness of skin and fever disappear on the third or fourth day: the desquamation generally takes place in minute scales, more especially in delicate females of fair complexion; but in other cases the epidemic is detached in larger scales or strips. In some cases the desquamation is the first positive confirmative of the diagnosis, when the eruption has been so pale as to be scarcely visible. Immediate recovery does not always follow desquamation. In many cases, without evident cause, peritonitis, splenitis, or anawere so intolerably hot, that little or no sleep was to be got day or night. The wind we had, like the campsin, blew hot though strong."

Luke Howard, in his elaborate meteorological work, gives the following account of the heat of July 1834:—"The heat of the weather, in France, appears to be extreme; persons of both sexes, labouring in the fields, have dropped down dead from the heat. Birds also have fallen dead, from the same cause, both in France and in Spain. In the latter country, vegetation has been ruined to an alarming extent.

The *coup de soleil* is of unfrequent occurrence in this country. It is not mentioned as a disease in Cullen's Nosology; but exposure of the uncovered head to a vertical sun is stated as one of the causes of phrenitis.

We are not, however, to consider that the effects of insolation bear exclusively on the head. At one of the evening meetings of this College, last year, a paper was read from the pen of Mr. Russel, of the 73d regiment, who relates three cases of *coup de soleil*, in which the morbid appearances found after death were not in the brain, but in the lungs; which were found congested, even to blackness, through their whole extent. The men were seized on a march, on a hot day. In reflecting on the probable consequences of such exposure, we must take into consideration the particular predisposition of the individual; and also whether he be in exercise, or stationary, during the exposure to the solar rays. I conceive, that in the first case (especially if the exercise should be severe and continued), the evidence of diseased action would be found in the lungs; but in the latter example, especially without protection of the head, in the brain.

It is to tropical countries that we must turn for all the great and striking examples of the injurious influence of solar heat. The different capability of different individuals to endure tropical heat is very remarkable; and the freedom from serious inconvenience which many Europeans enjoy, under direct and continued exposure to the calorific rays of the sun in a hot climate, is a surprising fact; while we can readily understand the perfect facility with which the native Indian exposes himself, the head naked, to the most intense solar heat, through the day. Together with the force of habit from his birth, he is aided in this security by the remarkable thickness of his scalp. The African proper, is, I believe, alone distinguished by the peculiar woolly hair.

"The burning province of Cumana," observes M. Humboldt, "the coast of Cora, and the plains of Caraccas, prove that excessive heat alone is not unfavourable to human life."

Henry Ellis, Esq., Governor of Georgia in 1758, describing the heat in that country, states that the thermometer, in the shade, rose in July twice to 102°, several times to 100°, and for many days successively to 98°; and did not in the night sink below 89°. He says, "I think it highly probable that the inhabitants of this town breathe a hotter air than any other people on the face of the earth." And again, "I must acquaint you, however, that the heats we are subject to here are more intense than in any other part of the province; the town of Savannah being situated on a sandy eminence, and sheltered all round with high woods. But it is very sufficient that the people actually breathe so hot an air as I describe, and no less remarkable that this very spot, from its height and dryness, is reckoned equally healthy with any other in the province."

"Experience," says Dr. Lind, "fully confirms this truth; that in elevated and temperate situations, where the soil is dry, gravelly and clear from wood, shrubs, and stagnating water, Europeans enjoy good health in the hottest climates, in all seasons of the year. This asylum for health is to be met with in almost every quarter of the globe. In Sumatra, Fort Marlborough affords a retreat tolerably safe. The unhealthy town of Calcutta has in its neighbourhood the healthy situations of Barasatte and Garatte.

Dr. Chisolm, in his remarks on the climate within the tropics, observes, "that if the endemic causes of disease could be avoided, the pure solar heat alone would not be found a cause of injury, except in the accidental production of that species of phrenitis known within the tropics by the name of *coup de soleil;* but," he adds, "the conditions necessary to the production of this disease are different from those in which solar heat is usually applied to the human body. The subject must be exposed to the hottest rays of the sun, during the hottest time of the day, when the thermometer is generally 130°; he must be stationary; his head must in general be uncovered, and the atmosphere must be still."

It is an unquestionable and most important fact, that the human constitution is capable of great endurance of continued solar heat without injury, in situations favourable as to soil, and free from stagnant water or sources of foul exhalation; provided also that great temperance in living is observed.

Mr. Moreing, who was employed on a survey in the Red Sea, by Sir John Malcolm, in 1830, has favoured me with the following account:—

"During the latter part of June and beginning of July, 1830, we were exposed, for some weeks, to an average temperature of 93° in the shade; yet, during the whole of this period, we had not a single man on the sick-list, out of a crew of 130. The surrounding country was a desert, without a particle of vegetation for miles, and the shore sandy and rocky, without sea-wind. I have found also, that in Upper Egypt, with the thermometer 105° in the shade, I possessed as much bodily and mental energy as in England; while, in the moist climate of India, with the thermometer at 70°, I have been fainting on a sofa. Our vessels of war on the African station, it is well known, are only sickly when near shore. At sea, the crew are exposed to the same degree of heat."

Yet it must at the same time be confessed, that the European constitution is always put to a severe trial in being transferred to a hot climate. Mr. Marshall, on the influence of a tropical climate on the natives of Britain, after pointing out the immense value of temperate habits, admits that the strictest temperance, and the greatest precautions in regard to health, are often totally inadequate to guard against the diseases of equinoctial regions. He says, that when a body of troops is transferred from Great Britain to a tropical climate (India, for example), the men undergo a diminution of muscular power; the sick-list increases from four or five to ten or twelve per cent.; and the ratio of mortality rises from one and a half to six per cent. per annum. British soldiers will surmount considerable fatigue for a short time, in equatorial regions, but not by any means with a similar impunity from disease as in this country. Excessive exertions in warm climates never fail to add greatly to the sick-list. The ratio of mortality of the children of British residents in inter-tropical climates, is usually considered high; and they require to be removed, at an early age, to a temperate climate. It is often seen that they become blighted and stunted in their growth, without the appearance of the pathognomonic symptoms of any specific malady."

Domestic animals imported into India from Europe are predisposed to disease —dogs particularly; they soon droop and become excessively thin; many die before they are six months in India, and only a small ratio survive a few years. They rarely propagate their species. Imported cows and sheep do not thrive. Horses from high latitudes are neither so efficient nor so healthy as in their own country. Animals which are common to a temperate and tropical climate are, perhaps, generally smaller in equatorial regions than in high latitudes; such, for example, as the sheep, the fox, the hare, and some varieties of the deer kind.

The superior power which man enjoys over all the rest of the created world to maintain his standard heat in extremes of high and low temperature, qualifies him to explore every known region of the earth. Inferior animals degenerate, or die, by removal to a very opposite climate, though beautifully fitted to their destined localities; as, the lizard and the chameleon remain cool under the equator, while the whale and the porpoise retain a degree of heat above that of the human body, though surrounded with the waters of the coldest northern seas, and amidst mountains of ice, in the neighbourhood of the Pole.

The capability of the human body to resist with impunity the influence of very high artificial temperature, has been proved by many experimenters, and by none more distinguished than our countrymen, Sir Joseph Banks, Dr. Fordyce, and their friends.

Dr. Blagden relates that he went into a room so heated, that in the hottest part the thermometer rose to 260°. In addition to his common clothes he had a pair of thick worsted stockings drawn over his shoes; he also wore gloves. He remained eight minutes in this apartment. He says, "The air felt very hot, but still by no means to such a degree as to give pain;" and he and the other gentlemen thought they could have borne a much greater heat. He observes, "For seven minutes my breathing continued pretty good; but after that I began to feel an oppression in my lungs, attended with a sense of anxiety, which, gradually increasing for the space of a minute, I thought it most prudent to put an end to the experiment." His pulse, on returning to the cool air, was 144. He conjectured, that should a heat of this kind ever be pushed so far as to prove fatal, it would be found to have killed by an accumulation of blood in the lungs, or by some other immediate effect of an accelerated circulation.

In all the experiments, which are too numerous to be quoted, the gentlemen were not inconvenienced by the transition from the heated apartments into the cold air. These results correspond with the fact with which we are familiar, that when we are thoroughly warmed, we can leave a hot apartment and go immediately into a very cold atmosphere without injury, provided that we are not at the time in a state of nervous exhaustion from any cause, or perspiring freely from the general surface; but if the body be much fatigued, as from long-continued dancing, and especially with a very relaxed skin, the risk of injury is great.

These and similar experiments serve to show that the animal powers can resist heat as they can resist cold; or, in other words, that the standard degree of the animal heat can be maintained with wonderfully slight deviation, both in the highest and the lowest temperatures.

That the human animal heat, however, is raised by a warm climate, is proved by Dr. John Davy, who found the temperature of the inhabitants of the Island of Ceylon higher than ours by one or two degrees of Fahrenheit; and that he had observed a similar change in the same individuals before their departure, and after their arrival.

The greatest elevations of the human temperature under the influence of external heat have been observed by Delaroche and Berger in their own persons; and they much exceed what I have obtained.

At my request, Dr. Green, of Marlborough-street, made ten examinations of patients receiving his sulphurous gas baths, with a correct animal heat thermometer, the bulb of which was placed under the tongue; and the following was the result:—The average degree of the animal heat was 97·5°; the elevation at the expiration of five minutes was to 99°; at the end of fifteen minutes to 100°. Then free perspiration took place, and the animal heat again diminished. Such was the mean of the experiments. The lowest temperature of the bath was 135°; the highest 165°.

The highly deleterious influence of hot winds in tropical climates, both on animal and vegetable life, is well known. Those who have been in the hottest parts of India compare the blast of the external air to that from a furnace. But not speaking of the very hottest parts, in the hottest season, I have found invariably that those who have lived in India complain of greater inconvenience from the oppressive heat of a crowded room at a London *soirée* in warm weather, than from the atmosphere of Calcutta; an effect referrible to the deteriorated air from the numbers assembled, especially if there be want of proper ventilation.

The Kamsin of the great Arabian Desert sometimes overtakes a whole caravan, and sheds its pestiferous influence on man and beast, to almost total destruction.

In Africa, Lander says, "the Harmattan has the effect of drying up the skin of the natives in a very extraordinary manner. After an exposure to it the skin peels off in white scales from their whole body, which assumes an appearance as if it were covered over with a white dust."

With relation to atmospherical temperature, the pestilential period varies in different countries, according to geographical position, and the consequent particular seasons. Dr. Russel observes of the plague in the Levant, "the winter puts an end to it in Constantinople; the summer destroys it in Egypt."

Sir Gilbert Blane, in "his Elements of Medical Logic, states that it is incontrovertibly established by the experience of ages, that the existence of plague cannot consist with a heat of the atmosphere above 80°, nor a little below 60°." He adds, "the pestilential yellow fever, in like manner, has its own range of atmospheric temperature, but on a higher scale than the plague, for it cannot subsist long if the temperature falls below 80°."

I think it questionable whether Sir Gilbert Blane may not have stated this condition of temperature too positively with regard to yellow fever; and it appears to me certainly so with respect to plague. In the year 1664, when the plague raged in London, the deaths were, in December, in the course of one week, upwards of 12,000; and in the following year they were, in June, 590; in July, 4129; in November, 3449; and December, under 1000.

Mr. Wilkinson, who resided many years at Alexandria, informs me that the average temperature at the beginning of the plague, in March and April, was about 78° at midday, and from 92° to 97° when the plague ceased, about the 20th of June. The disease is not known as an epidemic in Upper Egypt, where the heat is so much greater than in Lower Egypt, and the soil so remarkably dry. Any rain there is a surprising phenomenon.

On the point in question I am favoured with the opinion of Mr. Urquhart, whose testimony is highly valuable from his long stay at Constantinople, and from his having made a very diligent study of all the important circumstances relating to the statistics and topography of the plague. He says, "I have seen the plague in the midst of snow, and with a temperature above 100°." The universal opinion at Constantinople is in its contagious character. They also believe that its ravages are arrested by a low or a high temperature; and it generally so happens; but when the plague begins late in the year, it continues through the winter, as during last winter, when it commenced two months later than usual. I have observed it to run a course of six months, or thereabouts, in the same place. There are places where it never ceases; but there, the one-half of the town will have a different exposure from the other, the plague alternating from the one portion to the other with the alternation of the winds, which generally blow six months from the south, and six from the north. There are other localities where the plague never ceases."

The connexion of a southerly constitution of the air with pestilence has been remarked by writers from the earliest records to the present time. The new and unwelcome visitor to Europe, the Asiatic cholera, did not show any particular preference to the months of the year, or appear to have its virulence modified by atmospherical temperature; but certainly it prevailed most in damp and low situations.

According to the statistical accounts of M. Moreau de Jonnes, the deaths from cholera in Paris, and the departments, were, in April 1832, when the disease first broke out, 16,607. It continued, without intermission, shifting its situation till December. In June, the deaths were 19,440; in December, 602; but its relative fatality to the number attacked was not diminished in the colder months.

M. Brierre de Boisment, in his analysis of the epidemic cholera in Poland, observes, "that every atmospheric change was followed by an accumulation of cholera patients in the hospital; while, if the weather remained stationary for some days, the disease ceased to make material progress. Great heat, a storm, or sudden cold from a state of heat, was immediately followed by an increase of admissions."

From all the examinations I have made of the various details published, I am led to the conclusion, that this dreadful pestilence ran its course in the particular district which it invaded, in three months, as a mean statement.

Curious accounts have been given by Dr. Henry, of Manchester, and by Mr. Wallace, of Dublin, of an apparatus for disinfecting, by means of dry heat, all articles supposed to be impregnated with contagious matter. It was considered that the infectious matter of cow-pock was rendered inert by a temperature not below 145°; and that the more active contagions are probably destructible at temperatures not exceeding 212°.

I shall conclude my subject with some observations on the influence of heat of climate on the physical characters of the human race.

The early development of the organization distinguishing puberty in warm climates, is well known; and life itself, for the most part, runs its several stages in a shorter time between the tropics than in temperate climes.

As we go south, the period at which the catamenia of females commence and cease become earlier with every degree of latitude; until, on arriving in India, we find that in the plains, females become mothers at from ten to twelve years of age, and lose the catamenia at from twenty-five to thirty. In the south of Europe, in Italy and Spain, the same circumstances are observable in a modified degree.

There are occasional instances of remarkable longevity in the natives of hot climates. It appears, from the statistical reports of the American government, that in the Southern States the number of persons above 100 years of age bear a proportion of twelve to one in favour of the blacks over the whites; and I find that from those given of the West Indies, the instances of equal longevity amongst the coloured population are very numerous, and in a proportion over the white population equally remarkable. We learn from travellers, that in Africa longevity amongst the negroes is far inferior to that which so remarkably occurs in the West Indies.

From the whole inquiry, the conclusion, I think, very clearly follows, that the health and longevity of the human race are in an infinite degree more connected with the various circumstances of food, clothing, occupation, habits of living, place of residence, free ventilation in dwellings, &c., than with climate merely, whether hot or cold.

That solar heat causes blackness of the skin is an ancient opinion, and for the difference of colour, and other varieties of the human race, some modern writers of eminence have resorted to climate as an almost sufficient explanation.

"The heat of the climate," says Buffon, "is the chief cause of blackness among the human species." I could quote other writers who express a similar opinion still more strongly.

That certain diversities are produced by climate, and especially in the complexion of the skin, is a truth that must be at once acknowledged; yet a little inquiry enables us to discover that we must look for deeper causes to explain the great varieties of the human race, than climate alone.

"It cannot be doubted," says Humboldt, "that the greater part of the natives of America belong to a race of men, who, isolated ever since the infancy of the world from the rest of mankind, exhibit in the nature and diversity of language, in their features and the conformation of the skull, an incontestible proof of an early and complete separation."

I am favoured by a very intelligent friend, who has been a great traveller in India, with the following particulars:—

"The Malays, Javanese, Borneans, and the inhabitants of some of the other islands in the Eastern Archipelago, on and within a few degrees of the equator, N. and S., are all copper-coloured, and much lighter in complexion than the natives generally of Upper India, Lahore, and Afganistan, between the 30th and 35th degree of N. latitude. A large portion of the Himalayan mountaineers, at an elevation of from five to eight thousand feet above the level of the sea, where the winter is as severe as in Europe, are fully as dark or darker than the Malays living near the equator, as just now stated, where the solar rays are so powerfully felt. The latter expose their bodies almost entirely to the influence of the sun, whereas the mountaineers constantly wear white woollen clothing: yet their bodies are of quite as dark a hue as their faces.

In the various parts of Hindostan and the neighbouring countries, there is an extraordinary variety in the colour of the natives, where the power of the solar rays must be the same. But the phenomenon in question is still more remarkably exemplified in Africa, a comparison being drawn between its inhabitants and those of Asia in the same latitude. For example, look at the people of Africa, the natives of Darfour, Kordofan, Bourneau, and in N. latitude from 15° to 25°, they are generally, I believe, with the exception of the Egyptians and Arabians, quite black, with woolly hair; whilst the Persians, the natives of the Deccan, in India, the Birmese, Siamese, and Chinese, are all either brown or copper-coloured."

The different customs of the natives of hot countries in different parts, in regard to clothing, is worthy of further remark.

Mr. Moreing informs me, that in the hot region of the Nubian coast, between the Straits of Bakel-Mandah, and the 25th degree of N. latitude, and generally the western shores of the Red Sea, the natives are copper-coloured, and without the negro features, exposing themselves to the hottest rays of the sun with uncovered heads; while, on the opposite coast of Arabia, where the thermometer seldom indicates so high a temperature, they most carefully cover themselves. Their complexion is a light copper colour. Mr. Shaw, the missionary, relates to me, that in South Africa he had observed marked distinction of complexion amongst the various tribes; that the Kaffres, Zeulas, and Buchwanas, on the eastern side of the Peninsula, were black, with woolly hair, whilst the Wamaquas, Bushmen, and Hottentots, were copper-coloured, with lank straight hair.

In now bringing this paper to a termination, I must offer much apology for having trespassed at such length on the patience of my audience; although, from the nature and extent of the subject, I feel that I have rather borrowed from my materials than exhausted them.—*Ibid.*

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PATHOLOGY AND THERAPEUTICS.

TURPENTINE IN TETANUS.

BY JOHN H. DAYTON, OF SAG HARBOR, N. Y.

[In a Letter addressed to the Editor.]

The efficacy of Turpentine in Tetanus is mentioned by many authors, yet as it regards the quantity and the length of time it may with safety be administered, they are, I believe generally deficient. To supply this deficiency (if it actually exist), I send you the details of a case which has been only a few weeks off my hands. H. C. a colored boy, æt. 8 years, sprained his back a few days before, while carrying a pail of water. March 18th, at the breakfast table, was seized with a spasm, which was called by his parents a fit. He very soon recovered however, and played about during the day, occasionally complaining of pain in his back, for which he took from his mother in the evening, tinct. opii, guttæ x.

March 19th, 12 o'clock. I visited him for the first time. Found the disease fully developed: Rigidity of the back and neck; pain at the pit of the stomach; pulse 90; skin hot; bowels constipated and flattened; jaws could only be opened half an inch; slight difficulty of deglutition; spasm every fifteen minutes, &c. Being three miles from home, and having no blistering salve with me, ordered a mustard paste, four inches wide, the whole length of the spine; castor oil ℥ss. *statim;* spts. terebinth ʒj., every half hour; pills opii, camphor, sub-mur., hydrarg, a. a. gr. i, ipecac. gr. ss., to be given every two hours.

20th, 12 o'clock, M. Oil caused a free evacuation of the bowels; no other alteration: medicine to be continued, with orders to increase the turpentine, should the spasm be more severe, and decrease if it subsided.

21st. Sent for at 5 o'clock, A.M., as he had a very severe spasm. Found him, however, much the same; stomach rejects the turpentine: twice the quantity to be thrown up the rectum every 1st, 2d, and 3d hour, the same quantity, by the mouth every 4th; also to be rubbed on the spine frequently; a laxative enema. 5 o'clock, P.M., continued the same, with perhaps a little lighting of the countenance, enema produced a large evacuation of the bowels, containing three tænia, five or six inches in length. Flax seed tea *ad libitum*, slight strangury having set in.

22d. Much the same, medicine (except the calomel, which is only to be given once in six hours, the mouth being slightly touched) to be continued.

23d. 7, P.M., rather improved; slept well; passed three stools; urinates freely: pulse 95; deglutition more difficult, owing to the salivation: tinct. opii, guttæ xx., instead of the pills, as he cannot swallow them; turpentine ʒij., by injection every 3 hours, as the stomach rejects it altogether; and the rubbing on the spine continued. 5 o'clock, P.M., same.

24th. 9 o'clock, A.M., pulse 100; spasm slightly increased: passed a scybalous stool, containing five tænia: tinct. opii, guttæ x, to be added to each enema.

25th. Spasm less; pulse same; reduce the tinct. opii: guttam x, calomel gr. i, every 12 hours, to keep up salivation.

26th. Spasm less; pulse 95, weak; laxative enema.

27th. Improving. Discontinue calomel; passed a stool containing three tænia.

27th, 28th, 29th, sick myself, and did not visit him. On the 30th, however, found him much improved, and learned from his mother that she had gradually decreased the medicine, and now gave only an enema of turpentine ʒj., tinct. opii x drops, in four hours.

April 2d. Less rigidity; no spasm; slight twinging, when asleep excepted. From this date the enemata were used less and less until finally abandoned altogether. The same plan of treatment has succeeded in two other cases in my practice, and in a number of others treated by other physicians. I do not relate this for the purpose of inducing a belief, in any quarter, that turpentine is to be considered as a specific for this terrible disease, but simply to show the extent to which the remedy may be pushed without injurious effect; and for myself should not hesitate to give it much more freely if I thought it required.

PENETRATING WOUND OF THE COLON AND SPLEEN WITH SUBSEQUENT LOSS OF THE RIGHT TESTICLE.*

The subject, the examination of whose body is here reported, received, in the summer of 1829, a wound in the left side, just under the last false rib, about two or three inches anterior to the spine, which went through his body and passed out near the same point on the opposite side, penetrating in its course the curve of the colon and the spleen, and passed on through the parietes of the opposite side without wounding any other organ. For eighteen months after the reception of the wound he was troubled with an artificial anus, during which time he had no discharge by the natural way, except when injections were given him. The fæces passed through both openings during the greater part of the time until the wound healed. Shortly after the wound in each side healed, he was attacked with psoas abscess on the right side, which discharged itself into the right side of the scrotum, and the right testicle took on inflammatory action, suppurated, and was entirely destroyed; the other testicle was not perceptibly affected. Immediately after the healing of this abscess the patient imagined that he had a collection of pus in the lower part of his abdomen, for the relief of which he insisted on his physician to tap him, which he did just at the superior edge of symphysis pubis, but found no pus. There quickly followed a most anomalous feature in the history of this man's maladies; viz., a discharge of part of his fæces per urethra nearly every time he urinated: this continued up to the time of his death.

He had frequent attacks of difficulty of urinating, which he relieved by drinking spirits. Subject to attacks of pleurisy both before and after the reception of his wound. From being brave, ferocious, and energetic, as he was before he received his wound, he became timid, fearful, and petulent, and continued thus until he died; and it was a matter of common observation that Moses Batten was not the same man he used to be. He was for twenty years before his death a man of very intemperate habits, and continued so up to the period of the attack which terminated his life. There are two other points worthy of notice before we go on to a report of the appearances of the different organs of his body upon dissection. First, his venereal propensities were much greater after the loss of his right testicle than before, and he seemed to enjoy the sexual embrace to a fuller extent than he did before. Second, his wife was pregnant at the time. She was twenty-seven years old, enjoyed fine health, and was perfectly regular in her catamenial discharges for the remaining ten years of his life, yet she never conceived again, although his intercourse with her was more frequent than before.

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* Report of a Post Mortem examination, made in Shelby County, Tennessee. By Drs. Samuel Bond, Thomas H. Bayless and Washington Bond, August 14th, 1837. Reported by Dr. Thomas H. Bayless.

Some days after the commencement of the attack which resulted in death, Dr. Bond was called to visit him; he had been previously attended by a "Thompsonian." Found him labouring under great gastric irritation, ejecting a muco-purulent matter; some pain in the left side, slight tenderness of the epigastrium. The circulation was but little disturbed—the pulse being from 78 to 84 per minute. Respiration was attended with a crepitous rattle, and an intolerable sensation of suffocation. It was also marked by fits of an entire suspension of breathing, which continued sometimes for half a minute or more, always succeeded by a deep spasmodic inspiration. These fits recurred at regular intervals until near the hour of dissolution, when respiration became short and frequent. The pulse was not affected by the irregular action of the lungs. Bowels torpid—discharging matter similar to that thrown from the stomach.

Post mortem examination.—Upon opening the chest, the first thing that particularly struck our attention was the enlarged and indurated appearance of the left lung; also the pleura costalis and pleura pulmonalis were attached by strong and numerous bands of coagulable lymph; the pleura pulmonalis was also attached to the diaphragm at numerous points by coagulable lymph; and, on opening the pericardium, there was considerable hypertrophy of the heart visible; it was also universally covered with a coat of coagulable lymph as thick as a knife blade, and the inner surface of the pericardium was as rough almost as a cow's tongue, perfectly studded with coagulable lymph; there were many points of strong adhesion between the heart and pericardium.

On opening the abdomen, the right lobe of the liver was found to be very much indurated and enlarged; left lobe natural, except several points of attachment between the walls of the abdomen and liver, and between the diaphragm and liver, by coagulable lymph. The coats of the stomach were generally very much thickened and vascular, and there were many points of attachment between it and the liver; it was also strongly attached to the walls of the abdomen by coagulable lymph: upon opening the stomach we found it to contain about a gill of muco-purulent matter, and its mucous coat was very much thickened and inflamed, and the whole mucous surface presented a perfect granulating and suppurative surface. The patient always contended that his spleen sloughed off and came away after he received his wound, and upon examination for it we could not find the spleen, nor even a part of it, nor were there any remains to be seen of the splenic artery or veins. One other point connected with the history of the liver which should have been mentioned before, was the extreme enlargement of the right and left lateral ligaments, which were as large as a man's finger, and very brittle; when broken, the fractured surface was very irregular. The intestines, generally, were very much inflamed,—attached to the abdomen at numerous points by coagulable lymph, and attached to each other in many places; also the colon was attached firmly to the walls of the abdomen where it had been wounded. It was also attached to the fundus of the bladder by a small point, and we found a small hole about the size of a large goose-quill leading from one to the other. This attachment and opening accounts for the discharge of his fæces per urethra. The mesentery and omentum were very much inflamed and thickened; a considerable part of the omentum had come away during the healing of the wound in his side.

There seem to be four points of considerable interest in this case. First, the great length of time this man survived the loss of his spleen, which was eleven years. I know not of any case on record of such long standing. Second, was the loss of his spleen the cause of that change of disposition, from the courage and fury of a lion, to the submission and timidity of a lamb? Third, upon what physiological principle is it to be accounted for, that after the loss of one testicle his venereal propensities and enjoyment were so much increased. And, fifthly, why his embraces were unfruitful?—*Transylvania Journ. of Med.*

A BONELESS ARM.

A case like the following, if not extremely rare, is certainly without a parallel in this city.

Mr. Brown, a worthy and industrious provision dealer in Derne street, now thirty-six years of age, in his eighteenth year had the misfortune to have the right humerous fractured nearly in the middle. He was holding, under disadvantages, an enraged cow by the horns: in some unexpected movement of the unruly animal, both fell, and the bone of his right arm was broken in the fall. Under the care of a judicious surgeon, a reunion was favourably going on; but before the curative process had been completed, Mr. Brown accidentally had another fall, and broke open the old fracture again. Notwithstanding a most vigilant and untiring devotion to the injured limb, the divided extremities would not adhere; and, to the surprise of the medical attendant, the shaft of each part of the divided bone began to diminish in size, and shorten in length. By a gradual action of the absorbents, the whole of the arm bone, between the shoulder and elbow, was at length completely removed, and that too without any open ulcer, so that not a single vestige of it was left. It has now been in this state for many years, and probably will remain so for life. As there never will be a deposition of bony matter again in that place, nor even a cartilaginous or a condensed ligamentous substitute, which will materially change it from the present singular condition.

Mr. Brown presents the spectacle of one short arm and one long one. The right fore-arm and hand are of a size to correspond with the sound one on the left side, and, under certain circumstances are equally as strong. Ordinarily the right arm swings hither and thither, like a thong with a weight at the extremity; for the fore-arm and hand, with reference to the division above the elbow, constitute a pendulum, oscillating according to the movements of the body. Although it is impossible to push with the defective arm, he can draw a burden towards himself with it as strongly and tenaciously as with the other; and in so doing, the muscles are elongated, so that the arm is extended to its original length. When the resistance is removed, the muscles instantly shorten themselves about six inches. To show the perfect non-resistance of the apparatus of muscles, arteries, veins and nerves in the soft, boneless space, we saw him twist the palm of the hand, the other evening, twice round, which consequently presented the strange anomaly of having all the apparatus of the arm twisted like the strands of a rope. In that state the pulsations of the brachial artery and all its branches and ramifications could be felt under the finger, though passing in gyrations, like a winding stair-case, twice round the soft, unresisting fleshy mass.

Under any aspect in which this curiosity may be viewed, either by the anatomist or the philosopher, the resources of nature, and the admirable manner in which she conducts the concealed functions of a living body, are in the highest degree interesting.—*Boston Med. and Surg. Journ.*

POWER OF RESISTANCE IN THE LIVING SKULL.

A boy, five years old, a son of Mr. Marston, a farmer on Long Island, in the harbor of Boston, fell accidentally, in following his father by the side of an ox-team, with his head exactly in the rut of the cart path, forward of the wheel. Before Mr. Marston could possibly snatch the child from the dreadfully impending danger, a heavy hay-cart wheel, having a thick, broad iron tire, rolled directly over his child's head—rising up over the space between the crown and the ear, and down to the ground again from the temple. The agonized father ran with the supposed mutilated, if not dead, body to the house. On examination, by the mother, the scalp was found to be cut by the edge of the tire, as though a knife had been drawn over it, yet little or no blood flowed—showing the white bone below. As no injury of the skull could be detected, she closed the external wound with a simple dressing, which kept the edges in juxta-position. The boy exhibited considerable confusion, but it could hardly be called a delirium, and occasionally vomited blood for about a week. He also bled at the mouth and nose. It is plain, therefore that the blood thrown from the stomach was swallwed from time to time. At the end of six days the little fellow was quite restored, and we rarely see a finer specimen of robust, juvenile health and happiness, than in the person of this hard-headed boy.—*Ib.*

TARTAR EMETIC IN HYDROPS ARTICULI.

(From the Medical Gazette.)

The treatment of effusion into the joints by tartar emetic, in large doses, is an improvement which we owe to the experiments of M. Gimelle.

We shall here content ourselves with giving a few general points in the treatment, in anticipation of the work which M. Gimelle is about to publish on this subject. Since the period when he first became aware of the great advantage to be derived from tartar emetic in this disease, he has treated twenty-two patients in this manner, and all have been cured. The efficacy of the remedy was the same in every case; the differences in the seat of the disease, in the age, sex, constitution, or temperament of the patient, in the cause of the effusion, or in its tendency to be acute or chronic, seemed to have no influence on the cure, which, in every case, was speedy. The tartar emetic was never administered during more than eighteen days in succession, and the dose never exceeded sixteen grains in twenty-four hours. Its first effect was soothing, and it made the pain cease almost immediately. The improvement was obviously more speedy whenever it was borne by the digestive organs, and caused neither vomiting nor purging.

In almost every case these symptoms came on during the first days of the employment of the medicine, which, nevertheless, was ultimately tolerated. When these evacuations had ceased, in some instances there was an increased activity in one or more of the secretions, such as profuse sweats, or ptyalism.

The exhibition of the medicine was often followed by a slight feverishness, which sometimes lasted until night. The application of leeches at the commencement was useful, in cases where the inflammatory symptoms were very intense. At the same time poultices were employed, with or without laudanum.

The food was proportioned to the appetite of the patients; on an average, they ate a quarter of the hospital full diet, or its equivalent. Wine was given whenever it was not contra-indicated by the general state of the patient. All kinds of food were given, without selection; raw food, however, must be avoided—such as fruit, or salad, and acids; for instance, vinegar and lemon-juice.

Opium was given for sleeplessness; and dandelion *tisane* sweetened was used in every case.

Such are the general points. We will now give the details of three cases treated after this method, by M. Gimelle, in the syphilitic wards of the *Hôtel des Invalides*. Two of them (Picard and Demolombe) are still detained in St. Côme's ward, by venereal affections.

Case I.—*Successive Effusion in both Knees.*

Claude Picard, a soldier, aged 36, of a lymphatic constitution, injured by syphilis, came into St. Cômes ward on the 12th of July, 1837. His disease was caries of the nasal bones, produced by the venereal virus. His right leg had been crushed by a fall from his horse, so that he could not walk without a wooden leg. After he had been in the ward a fortnight, he was seized with pain in the right knee. In the morning, after putting on his wooden leg, he tried to get out of bed; but he had hardly put it on the ground, when the pain came on so violently that he was obliged to get into bed again. In a short time there was a considerable swelling of the knee, without change of colour in the skin; the part, too, was hotter. The pain was lancinating, and was present only when the patient moved. The swelling increased, and there was evident fluctuation.

For twenty days the patient was treated with antiphlogistics and emollients; thirty leeches were applied, and two blisters, as well as poultices with and without laudanum; but no improvement took place.

The tartar emetic was now administered, and it was given for eleven days running, in the following doses:

First day	4 grains.
Second day	6 do.
Third, fourth, fifth, and sixth days	8 do.
Seventh day	10 do.
Eighth, ninth, tenth, and eleventh days	12 do.

For the first three days the medicine caused slight feverishness, very frequent vomiting, and abundant purging. The improvement in the knee was remarkable, for the pain had entirely ceased.

On the following days the medicine was borne by the stomach, and no longer caused purging. The improvement was now more rapid; the serous effusion was re-absorbed, and motion was soon restored.

On the twelfth day the tartar emetic was omitted; on the fifteenth the knee was of its natural size, and the cure was complete.

Ten days after the cure of the right knee the left one was attacked. This time the pain began about two inches below the patella; it was lancinating, and of the same kind as the former one. It was hardly perceptible when the patient was in bed, but increased in proportion as he moved.

At the end of three days it passed into the knee, still preserving these characteristics. The application of fifteen leeches had but a slight effect on the inflammatory symptoms; the pain remained equally intense, the knee speedily became larger, and there was evident fluctuation. M. Gimelle now began to exhibit the tartar emetic, and continued it for eight days, in the following doses:—

First day	4 grains.
Second day	6 do.
Third day	8 do.
Fourth day	10 do.
Fifth, sixth, seventh, and eighth days	12 do.

As before, there was vomiting and purging for three days, during which period the pain ceased and improvement began.

On the following days the tartar emetic was borne, and the patient merely experienced slight nausea; there were no stools. The effusion was now rapidly absorbed, and the cure was perfect two or three days after the medicine had been left off.

To complete the history of this case we must add—

1st. That during both periods of the treatment with tartar emetic the patient's appetite was middling; he ate quarter-diet, and drank no wine.

2dly.—That sleep was procured by opium.

3dly.—That the patient had profuse perspiration, and an increased flow of saliva: the quantity of urine remained the same.

CASE II.—*Effusion into the Elbow Joint.*

A man named Clavel, aged 47, of lymphatic temperament, and a medium constitution, who had had several venereal affections, was admitted into St. Côme's ward.

The patient complained of having had a pain in his right elbow for eight or ten days, without any cause that he knew of. The pain had increased gradually, particularly when the joint was moved, and this at last became impossible; there was swelling without redness; increased heat; want of appetite; sleeplessness.

The symptoms were the same when the patient was admitted into the ward; to which we may add, that at the posterior part of the elbow, and upon the sides of the olecranon, there were two round and fluctuating tumors, which were painful when touched.

M. Gimelle's diagnosis was, that it was a case of effusion into the humero cubital joint.

For ten days successive trial was made of antiphlogistics (such as leeches, and poultices both with and without laudanum) blisters on various spots, and mercurial and hydriodated frictions. These remedies were useless, excepting that the antiphlogistics somewhat soothed the pain. The tartar emetic was then exhibited for eight days in the following doses:—

First day	4	grains.
Second day	6	do.
Third day	8	do.
Fourth day	10	do.
Fifth, sixth, seventh, and eighth days	12	do.

The medicine was borne perfectly well, and was omitted on the ninth day. There were neither vomitings nor copious stools, in spite of the food which was allowed the patient. The improvement was very rapid, and the cure was complete on the tenth day.

CASE III.—*Effusion into the Knee.*

Joseph Demolombe, a soldier, of strong constitution, and sanguine temperament, who had suffered from the venereal disease, was admitted into St. Côme's ward on the 8th of January, 1838. He was labouring under effusion into the knee, which had appeared for the first time, and without any apparent cause. The swelling began without pain, which did not come on till the fourth day. It was intermittent, and was felt when the patient moved the limbs.

When Demolombe was admitted, the knee had become of enormous size, and and there was manifest fluctuation. The general reaction was intense. For the first three days nothing was done but applying poultices to the knee. On the fourth day twenty leeches were put on. On the fifth day the pain was relieved, but the knee was as large as before. On the sixth day two blisters were applied. The size of the knee did not lessen on the two subsequent days.

The employment of the tartar emetic was now began, and was continued for five days, in the following doses:—

First and second days	4	grains.
Third and fourth days	6	do.
Fifth day	8	do.

The patient vomited several times on the first day, but not at all on the following ones. On the third day there were frequent and copious stools, which ceased entirely on the fourth.

On the sixth day (which was the 20th of January) the swelling had diminished by four-fifths, and the disease was clearly getting well.

The bystanders now requested M. Gimelle to omit the tartar emetic, in order that they might be better able to form an opinion of the efficacy of the remedy. M. Gimelle readily granted their request, as he did not see any danger to the patient in do doing.

The medicine was omitted on the 20th, 21st, and 22d of January. On the 20th and 21st, the improvement continued; on the 23d, the condition of the patient was stationary. On the 23d, M. Gimelle and the bystanders agreed that the malady was aggravated. On the 24th, the medicine was again administered in the dose of four grains, which produced vomiting and abundant stools.

On the 25th and 26th, the medicine was administered in the same dose, but was not followed by any evacuation. At this period there was no longer any fluid in the synovial membrane. The patient walked for a considerable time without feeling pain, or augmenting the symptoms; only, on pressing the joint strongly from above downwards, a slight relaxation could be felt in the parts of the synovial membrane which are extended over the sides of the patella.

From the 27th to the 30th of January, the patient walked about every day; he ate and drank as usual, and felt neither pain nor uneasiness in the knee. Nevertheless, the symptom above mentioned still remained.

On the 31st of January and 1st of February, the tartar emetic was again administered in four-grain doses. There were slight vomitings on the first day only. On the 2d of February the remedy was discontinued. On the 5th, Demolombe was entirely cured, after having taken 42 grains of tartar emetic at three different periods, the dose having never been more than eight grains in any one day.

In this patient the tartar emetic never produced any feverishness; nor were there sweats, nor more abundant spitting than usual. His sleep was always good, so that it was not necessary to give opium. Demolobe's appetite did not fail, and he continued to eat quarter-diet, and to drink wine.—*From the Gazette des Hôpitaux of Feb. 8th*, 1838.

[It strikes us, that had purging been added to the other antiphlogistic remedies employed before the administration of the tartar emetic, the use of so distressing a medicine might perhaps have been dispensed with.—TRANSLATOR.]

PHYSICO-MEDICAL SOCIETY OF NEW ORLEANS.

An extraordinary movement has been made in this body, it will be perceived, by reading the accompanying resolution. In a paper of that city, called the "True American," an article appeared on the 17th of April, entitled, "*Sight given to the born blind*," which has been copied extensively all over the Union. It seems that Dr. Luzenberg operated on a Seminole woman for cataract, who *was not totally blind*, as has been represented; but now, according to a report signed by eight eminent physicians and surgeons of that city, "the vision in her left eye is irrecoverably lost, and that of her right eye manifestly impaired." Instead, therefore, of restoring a blind person to sight, he has actually made the unfortunate subject of his surgical manœuvrings *no better*. But it seems Dr. L. was fully aware of all this, although sanctioning the publication which declared him to have achieved a great triumph in ophthalmic surgery. Of the nature of the charges which finally led to his expulsion, we have not yet been advised. It seems, however, to have been a case analogous to one brought before the Mass. Medical Society, two years ago, which eventuated in the expulsion of a fellow.—*Boston Med. and Surg. Journ.*

The following resolutions were adopted unanimously, on the 9th June, 1838, at an unusually numerous meeting of the Physico-Medical Society of New Orleans.

"Whereas, after a patient and dispassionate investigation of the charges preferred against Dr. Charles A. Luzenberg, and of the testimony adduced by him in his defence, it is the solemn and deliberate opinion of the members of the Physico-Medical Society, that he stands fully convicted of conduct and practices at once immoral, ungentlemanly, and empirical—Therefore be it resolved, that said Dr. Charles A. Luzenberg, a graduate of Jefferson Medical College of Philadelphia, be expelled from this Society, and that his expulsion be published in all the medical journals of the Union, and communicated to all the medical societies of the same." By order of the Society, H. DAVIDSON, *President.*

A true copy—J. M. W. PICTON, M. D., *Recording Secretary.*

Attest—C. F. SNOWDEN, *Corresponding Secretary.*

MEDICAL SCHOOL AND PROFESSORSHIPS.

Ever being organized, but never fully organized and placed upon any thing like a permanent footing, seems to be the fate of nearly all the institutions of the country intended for instruction.—Change and revolution, but not often progression, is the course of most of them. Universities, which are meagre unities;—Colleges, which do not deserve to be considered as grammar schools;—are the titles by which the people of these States voluntarily deceive themselves. A legislature displays vast liberality in multiplying charters, and thus dividing and distracting the patronage of the friends of learning, without adding the substantial aid of pecuniary endowment. A literary fit seizes upon some dozen of worthy cits and they erect themselves into trustees of a college, ask for and obtain a charter, and forthwith proceed to elect professors suitable or unsuitable, here or there, according to the urgency of the nearest candidate, or suggestion of some Solomon of their number. One of them, perhaps, displays commendable liberality in giving an outlot, on which a college edifice is to be erected; and on the strength of this a prospectus is issued, in which, with the title of the institution, are a list of its trustees and professors, and magnificent views of its superior advantages. Some simple minded man who has written an essay for a magazine, or taught school reputably in his native town, yields to the invitation sent from the governors of the new college, and accepts the appointment of professor. Only think, exclaims the wife, my good man is professor, a real college professor. Well: the worthy Dominie gives up his school, sells his little property, and sets out for the scene of his future greatness and labours. But alas! on his arrival he finds every thing, even to the college walls, and, still more, the college youths who are to fill it, to be all *in futuro*—things and persons yet unseen *in posse*, but no evidence of the *in esse*. It may be, a building is procured, and a few straggling students are caught and caged, and put through their exercises by the new professor, and some of his luckless associates. But the novelty is soon over; and when payment of salaries becomes a question, the treasury is found to be empty;—the students paid few or no fees, and it turns out that the confident assurances of great success, and large incomes for the professors, made by the college founders and governors, were merely intended to be advertising puffs, like those for Bear's Grease or Macassar Oil, which ought not to have deceived any one. There is no bond, no written contract between the parties, and the disappointed professor is left to pack up and be off to some other new college, which brags still more than the one he is on the point of leaving, and which agrees to add a new branch of science to that which he had before been announced to teach. That he may not this time be deceived he affects the sceptic, and deducts one half from the gross sum which he is told he *cannot fail* to receive, from the number of students who *positively* will enrol themselves. He goes to college the second, which has actually an edifice, unfurnished however with books or apparatus; and he finds himself, after the first session, much in the same situation as he was before. No longer hoping, but reckless, he travels from city to village, and from village to city, professing to teach and receiving professions of support, which end, as they began—in words. His temper becomes soured, even if his habits are not deteriorated, and he feels his intellectual powers to be on the wane, not so much from age and over exertion, as from disappointment and want of methodical exercise.

If the new scheme be of a medical college, it is usually concocted by physicians who take the most conspicuous posts in it themselves. Failure, here, need not excite any particular sympathy, since the parties are on the spot, and supposed to be cognizant of all the manœuvres, intrigues, and difficulties in the case. But when a medical man is invited from a distance to take office, he cannot be supposed to be thus enlightened; and if he accept he is in danger of running nearly the same course as that of the poor Dominie. In some respects he is to be pitied still more than this latter; for besides the disruption of family ties, he leaves behind him a dear and esteemed circle of friends to whom, and to their families, he has been the physician and friend, and not seldom counsellor in their various cares and vexations. Many years must elapse, even under favourable circumstances, before he can hope to establish in another place similar relations with another circle:—he may not unlikely fail ever to renew such connexions. He cannot after a lapse of time do so, even though he should return to the place of his first habitation. He will find a successor in the sick chamber, and the confidences, once his, transferred to another. The change was gradually, perhaps reluctantly, made, but it is now effectual and cannot be undone.

After these incidental remarks, we may say, which we do with perfect sincerity, that no one of the associations or transfers which we as journalists record, has served as a text. From week to week almost throughout the year, in newspapers and periodicals of every kind, one is led by accounts of resignations and appointments into the train of thought to which we have given words in the preceding paragraph.

ALBANY MEDICAL COLLEGE.—The following gentlemen have been appointed to professorships in this new institution: Ebenezer Young, M.D., James H. Armsby, M.D., David M. Reese, M.D., Alden March, M.D., Henry Green, M.D., David McLachlan, M.D., Thomas Hun, M.D., Amos Dean, Esq., hold, respectively, the chairs of Chemistry and Natural History; Anatomy and Physiology; Theory and Practice of Medicine; Surgery; Obstetrics; Materia Medica and Pharmacy; Institutes of Medicine; Medical Jurisprudence.

We have but one wish just now to express respecting this school:—It is, that Dr. Reese will take the trouble of informing himself about the brain and nervous system in general, and the real creed of the phrenologists, before he thinks of slandering them, by misrepresenting their views, and by causeless accusations, as he has done in two of his published works.

MEDICAL COLLEGE OF RICHMOND, VA.—A medical departmment of the Hampden Sidney College has been established in Richmond, in which lectures will be given during a period between the 5th of November and the last of March. We are sorry to see this attempt to extend the usual length of the medical session spoken of in terms of discouragement by a contemporary journal of this city, and in which we met, a month before, with the expression of "Utopian" applied to all such attempts, when it was speaking of the change in the arrangements and organization of the Georgia Medical School. Doubtless if every medical writer and teacher thinks an extension of the present period of four months to be a hazardous experiment and "Utopian," it will remain unattempted. But if such extension be plainly required, as it is in the opinion of nineteen-twentieths of well informed and impartial observers, ought not every school at once to set about, in place of setting itself against, this reform. No teacher of the practice of medicine, or of the institutes of medicine; nor of theoretical and practical surgery; nor of anatomy, special and general; nor of chemistry, general and medical; can do himself, or the subject, or his auditors, justice in a course of lectures of four months only.

UNIVERSITY OF THE CITY OF NEW YORK.—The chairs in the medical department of this institution are nearly filled. We shall soon be able to announce its complete organization.

Dr. MUSSEY, of Dartmouth College, has accepted the professorship of Surgery in the Medical College of Ohio. Dr. M. is able and zealous, and deserves success.

Dr. SMITH of Baltimore has been appointed Professor of the Theory and Practice of Medicine in the Transylvania University. Dr. Thomas D. Mitchell, who held the chair of Chemistry, has been transferred to that of Materia Medica and Pharmacy, and the vacancy thus left by him has been filled by the appointment of Dr. Peter of Lexington.

JEFFERSON MEDICAL COLLEGE OF PHILADELPHIA.—Under the new charter and organization of this institution, to which we referred in a former number of the "Intelligencer," all the officers ceased to exist as such, except the old trustees, who were continued by the new charter. It became, therefore, necessary to appoint professors to the vacant chairs. All the former professors were accordingly unanimously re-elected.—*American Medical Intelligencer.*

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An Introduction to the Study of Animal Magnetism. By the BARON DUPOTET DE SENNEVOY.—With an Appendix, containing Reports of British Practitioners in Favour of the Science. London. Pp. 188, 12mo.

This is a convenient, one might say a useful, manual on Animal Magnetism. The author is ardent and zealous, and yet, what cannot be said of many transatlantic magnetisors, seems to be honest also in his expositions. The work is in part historical and retrospective; in part narrative of events of the day; and, to some extent, speculative and hypothetical on what may yet be seen and proved. Of the marvellous, or rather miraculous, part of the system, we have already expressed our opinion—impliedly at least—in the corroborative authorities which we adduced of Rabelais, Montaigne, Cervantes, Burton, and Shakspeare.* Respecting the state of magnetic sleep and its phenomena, physiologically considered, and as a therapeutic means, we were aware then, as we are now, of the importance of the subject; and our convictions are the same at present as heretofore: that it ought to be kept out of the hands of itinerant sepeculators on public wonderment, and examined carefully and connectedly by physicians,—men who, from their studies and habits of observation and thought, can do it justice.

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* Eclectic Journal of Medicine, November, 1837.

We do not believe ourselves to be biassed by professional prepossessions when we aver, as our firm belief, that more knowledge of this matter is to be gained by the carefully conducted experiments of a conscientious and well informed practising physician, than by mathematicians and natural philosophers: and hence that we should think more of the opinion expressed in favour of Animal Magnetism by John Elliottson, Doctor of Medicine, for example, than by Dionysius Lardner, Doctor of Philosophy. This latter gentleman has, we understand from the newspapers, lately expressed himself very decidedly in favour of the new science, as it is called, and has instituted some experiments, to show that it is in some respects modified by the intervention of physical agents. We are not sure that this learned gentleman, who had demonstrated so fully to his own satisfaction, and to that of some of his friends, the impossibility of steam vessels making a voyage across the Atlantic, a year or so before they had actually performed it with ease and expedition, and carrying both passengers and cargo, will be regarded as very weighty authority in *demonstrating* the truth of animal magnetism.

Among the names cited by the Baron Dupotet, of distinguished men who have acknowledged the facts of animal magnetism, we find some, as those of Cuvier and Laplace, who rather admit that the thing is not impossible than actually affirm its truth and philosophy. Dugald Stewart is one of those ingenious metaphysicians who by the aid of a few postulata can render any thing plausible, without his advancing a step in the proof of the case. Coleridge may have given his adhesion to "the new science," as he would to any thing marvellous and imaginative, not essentially adverse to good morals and right feeling. In these remarks we rather perform our duty as critics on the author, than attempt to deny certain notable, and in one sense wonderful, physiological changes induced in the animal economy by what is termed animal magnetism. The cases which the Baron details are much more convincing than the adduction of names, the more especially when these are spoken of without qualification, as witnesses to "the facts of animal magnetism." Under the head of facts, as affirmed and believed by an enthusiastic disciple, there are details narrated, to which, certainly, neither Cuvier nor Laplace could give credence for a moment.

After the first chapter, which treats of the History of Animal Magnetism, are the chapters successively on the Physical and the Psychical Phenomena of Animal Magnetism; the Method of Conducting the Magnetic Operation; Precautions to be observed and Dangers to be apprehended during the Magnetic Operation; Curative Effects of Animal Magnetism; Power of Animal Magnetism; Magnetism of Inanimate objects; Testimony of the Ancients; Sorcery and Witchcraft, Royal Touch, &c.

In the main, this work is written in good taste, and is not disfigured with the impious and absurd explanations and deductions on which we animadverted in a former number of this Journal. One effect of this sincere and calm, if not impartial, investigation into certain phenomena of life and mind, is to win attention, though it may fail in procuring conviction on the part of the reader. We regret that neither time nor space will allow of our making extracts. We may however recur to the subject ere long, as the Baron Dupotet informs us that the present volume is only an introduction to a more comprehensive and systematic work.

Homœopathic Practice of Medicine. By Jacob Jeanes, M.D. Philadelphia, 1838. pp. 389. 8vo.

If homœopathy can insure for its vehicles such good paper and printing as have been lavished on the work before us, there will be a new and plausible argument in its favour. After looking over, for one can hardly be expected to read, various books on allopathic or common medicine, printed as they are on whity-brown paper, and in type any thing but legible, it is really refreshing to gaze at the fair white pages, relieved by distinct and well-faced letters, of "homœopathic medicine." Nor ought we to be cynically twitted by the philosophical critic for being led away by appearances;—for, after all, who is insensible to a handsome exterior; and moralise and reason as we may about innate worth and nature's noblemen, and the charms of mind, we act all the time on the adage which we affect to reject, viz., that fine clothes make fine ladies and fine gentlemen. What person of either sex would venture to go even to the house of prayer, clad with that simplicity and plainness befitting the occasion, and indicative of a truly humble spirit and contrite heart;—and in such fashion as would allow the body to be lowly bent in reverential awe. For ourselves, we do plead guilty, if need be, to a fondness for what some erroneously call extrinsic properties in a book. Good paper and good type are great aids to the reader in enabling him to follow out patiently and understandingly the reasonings of the author; and they go as far towards producing conviction of the truth as the introduction of numerous comparisons and plausible analogies.

Not wishing to have any concealment towards our readers, we have thought it best, at the outset, to let them know the immediate cause of the good humour with which, for the nonce, we are inclined to speak of homœopathy. For, as the rich man has rare qualities which the destitute one cannot be supposed to possess, and the giver of good dinners a prolific wit, which utterly shames the hungry wight who dines with Duke Humphrey, so we cannot but imagine that the lucubrations in the finely-dressed book before us, exhibit infinitely more medical philosophy than the publications of a different school which are clothed in a kind of dirty half-mourning.

Into the history of homœopathy and the life of its great founder, the erudite and original Hahnemann, we do not pretend to enter at this time; nor to repeat the account of its doctrines, which has been already introduced to the notice of the medical reader, through the pages of the "Library," in the reprint of Mr. Lee's work.* There is one fundamental point of the doctrine with which we shall begin our remarks, viz., that diseases are cured only by medicines which have the power of causing similar diseases, or at least similar symptoms in healthy persons. Thus, as Peruvian bark causes, we are told, paroxysms at certain intervals, it will cure intermittent fever; and, since mercury affects the membranes and bones, it is the remedy for diseases of which these parts are the seat. Belladonna, again, will give rise to a redness of the skin, dryness of the fauces and throat, and delirium, and hence is the cure for scarlet fever;—and so on to the end of the list. We learn that "the doctrines of homœopathia, which are the mere statements of, or only the fair, legitimate, and immediate inductions from these facts, are a striking example of the *inductive system;* that is, 'the

* Observations on the Principal Medical Institutions and Practice of France, Italy, &c.

observation of facts, and the embodying of those conclusions that legitimately flow from them.' " First, then, let us, after our own fashion, catch and embody these facts, which, like recruits for an army in time of war, are with difficulty procured, and for which often a high bounty must be given. Once caught and marshalled, it is very hard if we cannot make the levy go in what direction we think best, and that of course ought to be a charge into the allopathic ranks, followed by a rout of the old legionaries—the professors and doctors,—and of their camp retainers—the apothecaries, bleeders, &c. Fortunately, although the homœopathic proclamation is couched in terms of rigid Baconian discipline, there is great latitude in the style of argument and illustration, and the quality of recruited facts, enlisted by the various commanders.

What shall we bring up, then, to rally round the banner of homœopathy, which has for motto "*Similia similibus curantur*"—Like cures like. If a person is burned, burn him a little more. If he is almost suffocated with an impure and deleterious air, make him inhale carbonic acid:—if another is about to have epileptic fits, and of course fall down, anticipate, if possible, the attack by knocking him down; or should it have supervened, twist and contort his limbs by the suitable application of ropes and pullies. To a person shivering, and shaking his teeth almost out of his head, we should offer a cold bath, or the comfort of an ice-bed.

But passing by the more obvious applications of homœopathy, let us examine the subject in a more recondite manner, and see how far it is illustrated, and its great truths enforced, by reference to the nobler attributes of man—his intellectual and moral faculties. We flatter ourselves that on this tack we shall sail along triumphantly, with the banners of homœopathy floating in the breeze, whilst we are receiving the acclamations of its admiring followers. If we do not, why then is ingratitude rife even among the *Baconian inductives.*

Moralists and ethical teachers have always spoken of certain strong and continued emotions of the mind, or the passions, as states bordering on and not seldom constituting disease. Horace was neither the first nor the last to call anger a temporary madness;—nor Shakspeare the only one who describes a person under the influence of love to be somewhat "cracked." We refer thus familiarly to the poets, because they have been the greatest teachers of ethics. Those great truths which certain sententious philosophers had taught in aphorisms, and others had attempted to expound by long disquisitions, the poets placed in action, and made efficient both for instructing the intellect and charming the feelings.

Of the disease called Love, we need not give the symptoms. Who, that has reached adult age, is not experimentally acquainted with them? If there be among our readers an exempt we can only pity him;—not so much for pleasure missed, but because he must be classed among the ignorant. We pity him, as we would one who has never travelled, never encountered storms by sea, nor the sirocco or the simoom on shore; who has never climbed the lofty Alps or the Himalaya,—in fact, as we would a person whose blood has ever run sluggishly, and whose sensations have been few and feeble. Suffice it for the present to affirm, what few will be so hardy as to deny, that love is a disease, which, like other diseases, is manifested with various degrees of intensity, and with modifications depending on temperament, constitution, prior exposures, &c. It often becomes a question of great moment how it is to be cured—how the sufferer is to find relief from his torments. Regarded in the light of a raging fever, some have prescribed blood-letting, low diet, and the cooling regimen in general, with the customary medical precaution to avoid the exciting cause; in other words, to stay away from the fair tormenter. There are even cases on record of some ardent youths who, in a fit of desperation, have sought death, either from their own hands, or from an enemy in battle; but who, as good fortune would have it, were only desperately wounded. They subsequently discovered that the large effusion of blood had removed their love fever, and with the recovery of health there was a loss of their passion.

But instances of this kind, although urged with great confidence by the allopathic physicians, who are so credulous as to believe that *contraria contrariis curantur*,—and that a disease will be removed by some antagonist principle or agency, or by indulgence in some other passion, such as ambition, avarice, &c., are far from being satisfactory to the inquirer after truth. It will be easy for us to show that love, whether it amounts to mania, or exhibits itself in the more common forms of melancholy, is best and most successfully treated on homœopathic principles; in other words, that love cures love. The most authentic and celebrated histories of the disease exhibit cogent proof of this position. Where do we ever read of the long and enduring passion, which is only an every day way of expressing the fixedness of this disease, but among those lovers on whom their mistresses have frowned, or who, by cruel fate, as they term it, have been separated from them. Unrequited love ought, according to the prevalent medical doctrines, to die away, especially in the absence of the beloved one who first gave rise to it. Hence the current but erroneous saying, absence cures love. But, in reply, we would ask by whom, if not by disappointed and unsuccessful lovers, has the world been favoured with so much admirable poetry, on which the writers fed their passion, and of heroic enterprise, in which they sought to lose it, but in vain. If Petrarch had wedded his Laura, is there any body so simple as to believe that his malady would have continued, or at any rate have manifested itself as it did in his admired sonnets,—to which year after year the occasional sight at a distance, or the recollection of her, gave origin. Ariosto could not have chosen for the hero of his poem the Orlando

Che per amor venne in furore e matto.

if his suit had been successful. The *Furioso* would have become very speedily, in such a case, the mere *innamorato*, and been content to make an occasional forray to increase his stock of cattle, or to add to the number of his retainers.

Poor Tasso, who himself laboured under the disease so long and so hopelessly, because it was treated by imprisonment and the allopathic regimen, ought to have known better the workings of the passion and its true cure, than to have described Rolando (in the "Jerusalem Delivered") to be so fascinated, or frenzied, in the bower of Armida, as to require a display of all the policy and efforts of his friend Godfrey to extricate him. A homœopathic poet would have feigned the hero to have remained a short time longer giving and receiving love; and there would then have been no difficulty in persuading him to return to the camp and engage in martial duties. The cure of his malady would have been complete. Virgil evinced more knowledge of the pathology of love, and of its cure homœopathically, when he makes Æneas, after dallying for a time with Dido at

Carthage, and hunting with and being feasted by her, to set sail in quest of fresh adventures. Had the queen been cruel, the Trojan chief would have remained in Carthage, and sighed and moaned and protested true love, despite the very feeling and appropriate address of Jupiter's messenger, the plausible Mercury.

If, leaving the domain of poetry, we come down to the present time and every day life, how numerous are the instances of love curing love, the like curing like. Of the thousands in England who have, in the love madness of the hour, run away from home and parents and guardians and friends to Gretna Green, to have the nuptial knot tied by the hands of the worthy blacksmith, who was erst the officiating priest in the temple of Hymen, one is safe in alleging that the cure was complete in all. Very many, indeed the majority, before a long period had elapsed, are so completely cured, that but for the bondage in which they find themselves, they could not credit the possibility of their having been crazed at all. The records of Doctors Commons would show, that a larger number of married people who come before that court asking for a divorce, had begun their hymeneal career under the strong delusion of love. Treated homœopathically, love answering love, their recovery was so complete, that nothing next would serve them but to be separated if possible far as the poles asunder. This antipathy is a strong proof of the workings of homœopathy. Whereas, had obstacles intervened, and harshness and cruelty been interposed by parents or other relations; that is, had the common allopathic method of treatment been persevered in, the disease would have manifested itself with as much violence as ever; or, to use the language appropriate to the occasion, the fond hearts of the loving pair would have continued to throb in unison.

Were parents and guardians aware of the true philosophy in this matter, they would not, in cases in which their children contract attachments displeasing to them, have recourse, forthwith, to scolding and threats and disparaging reflections on the object of their child's affections. The hallucinations of love are not to be removed in this way; they will only be aggravated. But if the parents are initiated into the mysteries of homœopathy, they will judiciously contrive to make love cure love by wearying the young people with each other. In order to accomplish this, they should elicit from both of them the most exaggerated expressions of regard one to another, and encourage them to deal largely in euphuisms beyond those of Sir Piercie Shafton himself; and to be much in each other's society, always sitting and whispering together, when other persons are present. If they are proof against this treatment, added, as it should be, to a profusion of *lovely* remarks and exclamations, and saccharine speeches from the old people, then is there some other still more alarming disease, we know not of, which will demand a different course, and perhaps require a consultation.

The length to which we have been led in our remarks, on the ever prevalent malady of love, and the new homœopathic light which we hope we shall get credit for having shed upon it, will prevent us from more than cursorily speaking of some of the other passions. Anger, in its most annoying exhibitions, as where violent speech accompanies offensive attitudes, and design to strike and injure another person, is most successfully treated, on the homœopathic principles, by giving the pugnacious fellow as good as his own—that is, a thorough pummeling. It is wonderful, except to the homœopathical moralist, to see how mutually kind and soothing in their manner and language two bluff fellows will become, after having given each other a hearty threshing (like exchanged for like); although a short time before, and ere the philosophical treatment had been resorted to, they would have taken each other's life.

A farther illustration of the new doctrine is presented, in the way in which a good woman cured her husband of the vile habit of swearing. She had, on proper occasions, mildly remonstrated with him on its impropriety, and entreated him to abandon it; but in vain. At last, whether after having become acquainted with the leading point in homœopathism the narrative avers not, she had recourse to another plan, and so soon as he manifested the usual symptoms of his disorder, she forthwith met them by corresponding ones, and began to swear like a moss-trooper. Startled at first with this new mode, he subsequently became more calm, and was soon entirely cured. The converse of this story, as far as regards the sex, in the 'Taming of the Shrew,' is further proof in favour of our argument.

Jealousy finds nurture and aggravation in a frank and open manner and address; the passion is augmented by its opposite. Shakspeare knew this well when he contrasted the artless Desdemona with the jealous Moor. But let jealousy be met by jealousy, suspicion by mistrust, and there will be a speedy abatement of the symptoms, if not a complete removal of the disease. So it is of grief and some other of the depressing passions. That line in one of Moore's songs—"I'll weep with thee, tear for tear," addressed to the daughter of affliction, is written in the true homœopathic spirit. In giving tear for tear, sigh for sigh, one more expeditiously and thoroughly stops the fountain of grief, and rests the heaving chest of the mourner, than by mirth or joyous speech, or even tones of cheerfulness, which are harsh and grating; in fine, to convey the strongest idea of their perturbating, misplaced nature, we would call them allopathic.

We might multiply illustrations under this head in support of homœopathy. Those already adduced will suffice to convince any reasonable person, and no other is supposed to be addressed on this occasion; for the true disciple of Hahnemann cares not for your unreasonable characters. Strong in the panoply of common, though long buried sense, he deigns not to break a lance with every forward tilter on the allopathic side. If we have any misgiving for ourselves, it is that we shall not get full credit for our new-born zeal, in the good cause. It may be, indeed, that, like recent converts to any creed, we shall be thought to tend to ultraism, and shall excite some wonderment in the ranks of the reformers, by our novel facts and somewhat startling conclusions. But as this is an inconvenience to which we are exposed in common with the exclusive friends of the people, from Cleon and the Gracchi down to Jack Cade and Wilkes and Cobbett, not to draw examples from nearer home, we shall not complain.

The pharmacopœia of the middle ages took cognisance of important sympathies now overlooked, but which should be adduced in favour of homœopathy. An agate, for example, rendered a man eloquent and witty; a laurel leaf, placed on the centre of the skull, fortified the memory; the brains of fowls and birds of swift wing wonderfully helped the imagination. Lentils and rape seed were a certain cure for the small-pox; and very obviously—their grains resembling the spots of this disease. It was discovered then, no doubt by fair induction, and why should the discovery have been neglected up to this present time of our writing, that they who lived on fair plants became fair, those on fruitful ones were never barren; on the principle that Hercules acquired his mighty strength by feeding on the marrow of lions.

Equally well proved were the virtues of *turmeric*, because of its bright yellow colour, in jaundice; and of the *heliotropium*, or blood-stone, on account of the small specks or points of a red colour on its green surface, to stop a bleeding from the nose. *Nettle* tea is still a popular remedy, in parts of England, for the cure of the nettle rash (urticaria). On the same principle, *cassia fistula* is sovereign for affections of the intestines, and the seeds of the *lithospermum officinale* (common gromwell), characterised by a polished surface and stony hardness, in calculous and gravelly disorders. A still more pleasant conceit, as the incredulous will term it, was a belief in the virtues of the *lapis ætites*, or *eagle-stone*, which, as we learn from the weighty authority of Dioscorides, Ætius, and Pliny, if tied to the arm, will prevent abortion, and, if fixed to the thigh, forward delivery. Faith in the prophylactic and curative powers of this stone, rested entirely on homœopathic grounds: it originated from observing the manner in which the nodule, contained within the stone, moves and rattles whenever it is shaken. "*Ætites lapis agitatus, sonitum edit, velut ex altero lapide pregnans.*"* Verily the analogy is most conclusive and convincing: it partakes of the true induction of homœopathism. The whole doctrine of signatures, of which the preceding are some examples, was but a foreshadowing of the more perfect one laid down by Hahnemann. Who would not suppose that the following olden notion was among the discoveries of the illustrious German; viz., that *all poisonous substances possess a powerful and mutual elective attraction for each other;* and, consequently, that if a substance of this kind were suspended around the neck it would, by intercepting and absorbing every noxious particle, preserve the body from the virulence of contagious matter. In the celebrated plague of London, amulets of arsenic were suspended over the region of the heart as a preservative against infection. Angelus Saler went still farther when he gave a formula for what he terms his *magnes arsenicales*, which he asserts will not only defend the body from the influence of poison, but will, from its powers of attraction, draw out the venom from an infected person. These are wonderful *facts*, but not more so than those furnished by the daily records of homœopathism.

Equally clear and comprehensible is the general pathology of diseases, as laid down by Hahnemann. In place of those long and laborious observations and inquiries made for so many years by medical men (allopathists), with a view of determining the range and operation of the various external agencies to which the living body is exposed, and the intimate changes of structure of the organs and disturbances of function in disease, the homœopathic chief cuts the matter short, or rather reduces it to a mere scratch. He assures us that a host of maladies, such as hysteria, hypochondriasis, mania, melancholia, epilepsy, spasms of all kinds, rickets, caries, cancer, gout, jaundice, dropsy, hæmoptysis, asthma, and abscess of the lungs, deafness, cataract and amaurosis, palsy, pains of all kinds, &c., &c., have, for fundamental and exciting cause, the humour or miasm of psora; in the vernacular—*itch.*

Conformably with this view is the common mode of expression in reference to those moral disturbances, under which the human family, from infancy to old age, so commonly suffers. Itch is acknowledged by the popular voice to be the cause. Thus a boy hard to be restrained is said to itch to be in mischief; a girl itches for ribbonds and finery; a man who is bribed and corrupt, has an itching palm; another, bull dog like, wants to be in pugilistic strife, and declares that his fists itch to knock down his antagonist. A statesman itches for glory, and embroils his country in war; a general for promotion and fresh honours, and sacrifices, Suwarrow-like, the best part of his army in the capture of a city, which would have yielded to a rigorous blockade. The coquette, like the spider, itches to entrap as many as possible of the animals buzzing around her. In fine, there is a general itching for all kinds of mischief, disturbances, and revolutions in the body politic, as well as of innovations in the body religious, and all growing out of this humour, which more or less affects every body physical. Need we wonder that it took Hahnemann twelve years to find out this great truth; nor that so many good souls—men and women, who have not sufficient occupation to work out this humour from their bodies—should manifest a new variety of itching: that of being treated homœopathically. As this psoric origin of so many diseases is alleged to be coeval with the world, we must suppose that the first manifestation of it was in Eve's itching to taste of the forbidden fruit.

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* Introduction to Paris's Pharmacologia.

Associated with this popular pathology, is a practice which has generally obtained in Europe in families and schools. It consists in the administration of sulphur with molasses (treacle), to the young of both sexes, in order to destroy if possible the taint of itch, which, if not entirely visible on the skin of the urchins, was supposed to be about to appear. Even in advance of the more recondite remarks of the great Hahnemann, the notable mother in the nursery, and dame True-fellow in the school dormitory, took a wonderful latitude in the interpretation of the symptoms, which were supposed to indicate the presence of the psoric humour in the system. If a child was restless and fidgetted about in its seat, it was supposed to be suffering from the irritation of the disease. An attempt by another to catch a predestrian insect on his back would be construed into a sure symptom; as would certain twitchings and shrugging of the shoulders in a third, owing in fact to the accumulation of dirt on the skin for several days consecutively. Was the skin somewhat red, the itch was declared to be on the point of breaking out; or paler than natural, the disease had struck in on the vitals. To this latter conclusion the fond mother would the more readily incline, if the youngster exhibited sundry contortions, and placed his hands on his stomach, while making ejaculations indicative of pain. Green fruit, cakes, confectionary, and the like garbage, which the dear boy had been eating a few hours before, were all forgotten in the dominant belief that itch was the disease, and sulphur the remedy.

Reasoning in a circle, of which every now and then the world sees examples, is beautifully illustrated in homœopathism. A remedy causes symptoms resembling the disease for which it is used; that is to say, disease cures disease by aggravating it: or, in other words, medicines can only be instruments of health, because they are instruments of disease. A pleasant specimen of this travelling in a circle is exhibited in the preface of the work before us, in which the author remarks:—"It is a great advantage which the homœopathic practice of medicine possesses over all others, that, in novel or in undescribed forms of disease, which are much more numerous than physicians are generally aware of, it enables the physician to ascertain the remedies with tolerable success. This it does by means of the symptomotology of its remedial agents, the investigation of which has been pursued with surprising industry, perseverance, and success." What a consoling prospect is here held out. We learn the nature of the disease and its treatment by finding out its remedy. An aphorism, as satisfactory as, that a man can easily avoid poverty if he knows how to become rich.

But it is in the preparation and doses of remedies that homœopathy shines out with the greatest splendour. Hitherto power was supposed to be somewhat proportionate to mass and quantity; and that the larger the dose the more evident and active were the effects. But the new school has changed all this; with the same boldness, and no doubt justified by the same sound philosophy, displayed by the self-made doctor in one of Moliere's plays. That worthy located the heart on the right side, and the liver on the left; and on its being timidly suggested that these viscera were differently situated, he exclaimed, "O we have changed all that,—*nous avous changé tout cela!*" right left, or left right, it is all the same. "We practice physic now on an entirely new system." So our illuminated homœopathists have discovered that the smaller the dose the more certain and dicided its operation, and that great care is required, even in carrying the subdivision too far,—especially by trituration and shaking. Hahnemann, in his exposition, holds forth on this point, in the following strain:—"Besides, the homœopathic medicament acquires at each division or dilution an extraordinary degree of power by the friction or the shock imparted to it, as means of developing the inherent virtues of medicines, unknown before me; and which is so energetic, that of late, experience has obliged me to shake only twice, whereas, formerly I prescribed ten shakes to each dilution." Every body has heard or read of the mistake made by the attendants on a sick man, who construed the directions on the label of a phial, "When taken to be well shaken," to mean that the patient, instead of the phial, was to be shaken. Accordingly, after having given him a dose of the medicine they shook him—a pause, and they shook him twice—another interval, and they shook him thrice; and lo! the poor man gave up the ghost. This story, which has often made people laugh, has to the homœopathist a deeper meaning. With him it would have been a serious matter to shake the phial; but to shake the patient with so many fluids in his body would be at once pronounced a perilous attempt, and, if made, the result could be easily foreseen.

From this showing, we learn the folly of such active exercises as running and jumping, or the more mixed kind in riding on horseback, after having drunk mineral waters, or taken medicines largely diluted. If these exercises are supposed to be adapted at all to the cure of certain diseases, their employment homœopathically should consist in the invalid's sitting down to look at other people taking them, but by no means in making any exertion himself.

Another quotation from Hahnemann, on the art of compounding medicines runs thus:—"Gold, silver, platina, charcoal, are without action in man in their ordinary state, but from the continued trituration of a grain of gold with a hundred grains of powdered sugar, there results a preparation which has already great medicinal virtue. If a grain of this mixture is taken and triturated with another hundred grains of sugar, and if this process be continued until each grain of the ultimate preparation contains a quadrillionth part of the grain of gold, we shall then have a medicament, in which the medicinal value of the gold is so much developed, that it will be sufficient to take a grain, place it in a phial, and cause the air from it to be breathed for a few instants by a melancholy individual, on whom the disgust of life is carried so far as to incline to suicide, in order that, an hour afterwards, this person be delivered from his evil demon, and restored to his taste for life."

Whichever way we turn, to whatever subject we direct ourselves, we find illustrations of the workings of homœopathy, although the parties are often not aware of the doctrine *in extenso.* The banks in all parts of the United States, for example, have given the people, during the past year, such infinitesimal portions of gold and silver, that it nearly amounts to abstinence; and if the effects be in the inverse proportion of the quantity administered, universal gladness ought to have pervaded the land. A large issue once more of the precious metals cannot be contemplated with calmness by the benevolent homœopathist. The quantity will be entirely too great to allow of our hoping for a cure of the many maladies for which gold and silver, in properly minute and almost unappreciable portions, are the remedies.

Another article of less note and value in commercial exchanges, although in the arts of life and in war it plays no insignificant part, ranks high in the pharmacopœia of the homœopathists. We refer to silex, which was supposed to be inert when taken into the stomach, but which, by minute and protracted trituration with the sugar of milk, acquires, we learn, even fearful activity. Silex, although placed in the requisite homœopathic condition in various mineral springs, and especially in the hot springs of Iceland, was not known to affect in the slightest degree the animal economy, until the far-seeing Hahnemann pointed out the important *fact.* There is one application of this remedy which we would invite the new school to make. If it succeed, there will be no farther question of the usefulness of homœopathy. Our proposition is, to give, in approved doses, the quadrillionth part of a grain, for example, of well triturated silex to those flinty-hearted mortals who are insensible to all the appeals of benevolence, generosity, and patriotism. If like cures like in this case, there will be more general and diffusive light elicited by flint on flint than has ever yet been produced by flint on steel.

The country practitioner who is so much on horseback, visiting the sick, will no longer be able to carry any fluid solutions or mixtures in his pockets and saddlebags, as heretofore, since the shaking to which they would be necessarily subjected will render them fearfully poisonous. One is astonished that the people should have survived the old practice. It is probably on this account that the homœopathic doctors, even of the city, prefer to administer powders to their patients which are both impalpable and, on occasions, especially when introduced into phials to be smelled, or rather applied to the olfactories, absolutely invisible. At any rate agitation must be nearly null in the case of a dose of a decillionth part of a grain.

Physicians, and those who passed for shrewd observers, thought they had made a notable discovery when they told of cures of various diseases having been brought about in patients to whom no medicine had been given, or whose minds merely had been amused by their taking bread pills, or some drops of pure water handsomely coloured. On these occasions the recovery was attributed to the powers of nature, or to the workings of the imagination. But homœopathists take a new and very different view of the matter. Nature they treat as one would an old coquette, a *vielle dame de la cour,* by a succession of little attentions, *petits soins*, neither costly nor troublesome it is true, but effectual for the purposes intended. Hence the excessively minute doses—powders in paper of different colours, and in bottles of various fashions;—and hence, to give them value in the eyes of nature through her favoured children, the *naturals*, ever a large portion of the human family, they protest that their gifts are of exceeding potency. The arts of colouring and design must be enlisted in the manufacture of small bottles of every possible shape and hue; so that there shall be a harmony and accordance between the figure and colour of the phial and the infinitesimal dose of the powder in it and the disease for which it is administered. Even if the homœopathic druggist should forget to introduce any thing into the bottle, the faith of the invalid who receives it, under a caution not to shake it, will make up for this deficiency, and prompt him to proclaim, ere a few days have elapsed, how astonishingly he has been relieved of his malady by a few inhalations merely, or snuffings, over the magical bottle. And why not? when it is known that Paracelsus, that man of wonders, left a recipe for making a fairy in a phial, which was to be placed in a warm compost. In due time a full grown fairy would issue from the vitreous chamber, on the vivifying principle by which the Egyptians hatched their eggs in ovens. The imperceptible and invisible powder in the homœopathic phial acts a more wonderful part even than the fairy of Paracelsus: it is the seminal principle, the germ of health, and of renewed vigour of mind and body. It enters the frame through the nose, and is at the worst a genteel and harmless fashion of snuffing. As the use of these bottles becomes more general, we may look to the introduction of various graceful turns of the nose, which as yet is rather an intractable member, and at times sadly belies, by certain movements about the nostrils, a gracious expression of the mouth. To homœopathic philosophy will then be superadded a homœopathic grace. If the men have built up the former, we must rely mainly on the fairer sex for displays of the latter.

On the score of public hygiene the homœopathic doctrine makes us acquainted with some alarming facts. Hitherto people living on a river, even at a short distance from the spot into which is poured the refuse of matters used in manufactories, have been led to believe, on the faith of some learned inquirers into all the circumstances, that they might drink the water without injury to their health, as they knew they could without offence to their taste. Now, however, since it has been shown, or at least stoutly affirmed and believed by some, that the greater the dilution and the agitation to which the matters in solution are subjected the more active the liquid, we are brought to the unpalatable conclusion that the farther distant the inhabitants on the banks of a river, or any great estuary, are from the point at which the foreign matters are poured into the stream, the greater will be their danger from drinking of its water. Hence, whilst the people at Manyunk, for example, may drink with impunity the water of the Schuylkill, even though it be coloured with the refuse of the various mineral and vegetable dye-stuffs used in the factories, and the persons at the Falls, three or four miles below, will be in little danger, yet the inhabitants of Philadelphia must expect to receive an active solution for their beverage, increased by the agitation from pumping up the water into the basins at Fairmount, and its subsequent distribution in pipes through the city. Still worse will fare the people of Wilmington, should they hazard the drinking of the water of the Delaware, now that it has received the whole body of that of the Schuylkill; and as to the inhabitants of Newcastle, if they even sip it will be at their peril;—and yet even here it has not acquired its full strength, for the whole body of water at the Capes of the Delaware will hold more of the matters in solution, which were poured into the Schuylkill at Manyunk, a hundred and twenty miles higher up, than in some of the homœopathic formulæ their solutions and fluid mixtures.

Dazzled by the imposing features of the doctrines of homœopathy, we have unwittingly allowed ourselves to gaze on them too long, to the exclusion of a notice of the merits of the book, the title of which heads this article. We remember now that we began by praising its paper and printing. Its other merits cannot be judged of by the common code; and it ought we suppose to be tested by the homœopathic standard. It is then, we should say, guiltless of pathological details of any of the cases cited in its pages, as well as of any descriptive account of the direct and remote effects of the articles which have been prescribed. The philosophy of the treatment, and explanation of the mode of cure, are summed up in either recommending homœopathic doses of particular medicines, or in simply affirming that the patient got well under their use. The problem no longer is to find out the nature of the disease, and then apply the remedy; but to find a remedy, and then adapt the disease to it. We have, in the reformed method, to get diseases for remedies, and not as heretofore remedies for diseases. That we may not be accused of misrepresenting the author, a sentence from whose preface, to the same purport with the following quotation, we have already introduced, we shall give again his own language. He is treating of intermittent fevers, and, after quoting from Dr. Hartlaub language which we confess ourselves unable to understand, he favours us with this commentary. "The meaning of this expression can best be understood by reference to *arsen.*, *carbo.*, *veg.*, *cina.*, *cinchona*, *ignat.*, *ipecac.*, *nux v.*, *pulsat.*, *sabadilla*, *verat.*, under each of which are described the forms of intermittent fevers adapted to it."

Still further indicative of the precedence given to the remedy over the disease, is a common fashion in this work of heading the paragarph with the name of a drug, and then at once describing, after a manner, the disease; leaving the reader to guess at the connexion between the initial term and the body of the paragraph. For example:—"*Ignatia.* Case: Much mucus in the mouth, and an acid taste of the saliva. Loss of appetite for food, drinks, and smoking tobacco; eructation of the food; singultus; burning in the stomach; slight sticking in the epigastrium, which is very sensitive to pressure, and in which there is a sensation of weakness." The sentences which follow are no unapt illustration of the wholesale pathology of the new school.

"Ignatia is useful where there is a sensation of heaviness of the stomach, with sticking pains in the region of its cardiac orifice, and costiveness. Also in those forms of dyspepsia which arise from care and grief." What a masterly view is here! Identical symptoms in the pulse, appearance of the tongue, state of the skin and bowels, are assumed at once, without specification, from identity of cause. "Also in forms of dyspepsia which arise from care and grief." Truly homœopathy is a labour-saving doctrine. How moderate is the expenditure of thought which it exacts from its followers! Though in this respect there is a wonderfully direct proportion to the infinitesimal doses which they prescribe, and to the exceedingly minute allowance of common sense in those who take their prescriptions.

Under the head of Rheumatism comes the following:—"*Aconitum.* R. Inflammation of the elbow joint, with sense of numbness and swelling of the fingers, together with pinching pain extending into the fingers, fever."

The initiated are, we suppose, to infer that aconitum is the remedy for inflammatory rheumatism; but in what dose and how often to be repeated are points on which the author has not deigned to enlighten us.

The last paragraph on Paralysis is, "*Zincum.*—Paralysis of both arms, which had been preceded for a long time by severe pains of the hands and feet, and abdominal cramps."

The section on "Odontalgia," exhibits an amusing affinity between certain remedies and the symptoms. Thus, "*Aconit.*—O. beating, mostly on one side." "*Baryt. carb.*—O. drawing; extending, &c." "*Bellad.*—O. tearing, digging; in the teeth, &c." "O. retching and tearing." *Calcis carb.*—O. tearing paroxysmal. "*Chamomil.*—O. crawling, twitching, or tearing, or sticking." Other varieties under the chamomile caption are, "O. digging and gnawing in carious teeth, &c." "O. grumbling and drawing in carious teeth, &c." "*Cyclamen.*—O. sticking, boring, &c." Hyosciamus has, amongst other toothache affinities, "O. tearing and beating, and O. beating and humming."

The reader will with difficulty restrain himself, after having run his eye over these sentences, from exclaiming, "O! O! what refined symptomotology, and O! what a pleasant variety of remedies." Every sufferer has his cure; but then he must be able to declare whether his toothache is beating, or tearing and pulsating, or tearing and beating, or beating and humming, or digging and gnawing, or crawling or twitching, or tearing or sticking, &c., &c., in order that he may have prescribed to him, in homœopathic doses, either aconitum, or belladonna, or chalk, or chamomile, or crude coffee, or cyclamen, or hyosciamus, or carbonate of magnesia, or mercury, or mezereum, or nux vomica, or platinum, or pulsatilla, or sabina, or sepia, or spigelia, or silex, or sulphur, or veratrum. Thus the pulsatilla, which stands for O. picking, cannot be used instead of carbonated magnesia, which is in affinity with O. boring. Chamomile, the watchword for O. crawling, twitching, or tearing or sticking, and for O. digging and gnawing, and O. grumbling and drawing, will not replace hyosciamus, which has charge of O. tearing, pulsating, and of O. tearing and beating, and, more interesting than all, of young women with O. beating 'from jealousy and disappointment in love.'

Of the good effects of gold, as stated in "Homœopathic medicine," we have great confidence; especially in the cases indicated, viz.: "Of palpitation of heart, where this took place paroxysmally several times a day, and was accompanied by anxiety, and constriction in the breast;" and again we are told, *apropos*, of dyspepsia, that "*aurum* removed an indescribable aching sensation, and great accompanying restlessness and mental depression." Such is the force of our former creed, that whilst we firmly believe in the power of gold to cure many cases of palpitation of the heart, arising from and accompanied by anxiety and dyspepsia, with an indescribable aching sensation and mental depression, we should like both to receive and to administer it in larger doses than are sanctioned by homœopathy, even though we should be subjected to the imputation of "*auri sacra fames.*"

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OBSERVATIONS ON THE USE

OF THE

BALSAM OF COPAIBA IN DISEASES OF THE MUCOUS MEMBRANE OF THE INTESTINAL CANAL.

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IN the fifth number of the North American Medical and Surgical Journal, I laid before the profession the details of several cases exemplifying the beneficial effects derived from the balsam of copaiba in the treatment of chronic bronchitis. At a more recent period* I published the results of my experience with the same remedy in catarrh and morbid irritability of the bladder, as well as in leucorrhœal discharges. The object of the present communication is to show, by facts which have come under my personal observation, and also by a reference to high medical authorities, that when employed under appropriate circumstances, and with suitable precautions, the copaiba has been found decidedly useful in some diseases of the intestinal lining membrane.

The first of these to which I shall call the attention of the reader is *Dysentery*. The introduction of the copaiba in the treatment of this disease is not, so far at least as I have been able to ascertain, of very ancient date. Dr. Armstrong, it is true, states that it was recommended by some of the older writers in that "and similar diseases of the belly." But, conformably with his almost constant custom, he cites no names, so that his less learned reader is left in the dark relatively to the standing of those writers, and the period at which they flourished. Etmuller, and several of his contemporaries and immediate successors, speak of the use of balsamics in the secondary stages of the complaints in question. But as their remarks have reference to the Peruvian balsam, and never, it would appear, to the copaiba, and as neither James, Motherby, Lewis, Lieutaud, Cartheusen, and other writers of their times to whom I have access, make any mention of it, it is not unreasonable to conclude that the practice of resorting to the copaiba was not, to say the least, as ancient or common as Dr. Armstrong would lead us to believe.

But, however it may be in regard to the antiquity of the introduction of the remedy in the treatment of dysentery, a question which, after all, is quite unimportant to most readers, we have evidence that, at a comparatively recent period, several British practitioners,—whether guided by their theoretical views of the mode of operation of the copaiba, or by the result of their experience of its effects in other diseases of a kindred nature, or following the example of their predecessors, it matters not,—were induced to resort to it in that complaint. What the effects of the practice were, or what was the estimate formed of its utility, may be ascertained by a reference to the works of Pemberton, Cheyne, Good, Armstrong, Abercrombie, and others. The first of these writers employed it in both the acute and chronic forms of dysentery. He states, that when the griping pain, in the acute form, has in some degree subsided, he has frequently observed the greatest relief from the tenesmus, obtained by small doses of this remedy; and that injections of the same will often tend to remove the last mentioned symptom. "If it should happen," he continues, "that the practitioner is consulted after this disease has continued some time, and has now put on the form of chronic diarrhœa, with the excretion of mucus and blood, attended with occasional griping pain and tenesmus; and if, moreover, the discharge should be unusually offensive and curdled, there will be reason to suspect that ulceration has taken place in the large intestines: here, too, the same dose of balsam of copaiba may be recommended, and injections of it as before mentioned."

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* American Journal of the Medical Sciences. Vol. xxvii. May 1834.

Finally, when the disease arrived at this stage, and was attended with great debility, Dr. P. prescribed the same remedy in conjunction with the decoction and tincture of bark, and with tincture of opium when the tenesmus was distressing.

Dr. Cheyne, to whom the profession is indebted for a very excellent account of the dysentery which prevailed some years ago epidemically in Dublin, makes some valuable remarks on the use of bleeding and mercury in that formidable disease; and adds, that as soon as the influence of the latter was rendered apparent by the condition of the mouth, it was laid aside, and a mixture with balsam of copaiba was given every fourth or sixth hour. From this the greatest relief was often obtained: the fæces, from being of a bottle green, and mixed with mucus (the effect of the calomel and opium), and passed, with tenesmus, became more natural in appearance, and were voided less frequently; the patient considered himself cured, and in many cases his recovery followed. "It resulted from a consideration of the cases in my possession," Dr. Cheyne remarks, "that venesection, calomel and opium, followed by the copaiba mixture, with farinaceous diet, proved more successful than any other method which was adopted in the severest cases."

Dr. Armstrong states, that the copaiba might be beneficial in dysentery, but especially in those protracted cases which usually baffle the ordinary remedial means. He is of opinion, that it will hereafter be placed among the most useful secondary remedies, and generally employed after the lancet and calomel in the acute and subacute cases. In chronic dysentery he thinks it peculiarly suited, and states that in three obstinate cases, where purulent matter was passed from the intestines, it appeared to be of considerable service.

Dr. Abercrombie, than whom we know of no higher authority in relation to the treatment of diseases of the alimentary canal, states that in the more advanced stages of acute dysentery, when the morbid secretion continues after the inflammatory symptoms have been subdued, various remedies of a tonic and astringent nature appear to be useful. Among these he cites the copaiba. Dr. Abercrombie likewise recommends it, among other remedies, in chronic dysentery, and in the slighter and more obscure forms of affections of the intestinal mucous membrane. In all these cases it is also mentioned by Dr. Good as a valuable medicine. Mr. Hooper prescribed it in the dysentery which prevailed among the troops that returned to England after the discomfiture at Corunna; though particularly when the complaint was attended with suppression of urine. Sir James MacGregor, in his "Sketch of the Medical History of the British Armies in Spain," remarks, that Mr. Woolrich found great benefit from a mixture of the balsam copaiba in gum water with infusion of columbo, in the cases of dysentery treated by him in the Hospitals of Celorico and Castello Branco. Dr. Bamfield, after remarking that the copaiba has sometimes been used successfully in chronic dysentery, adds:—"The friendly and kind Mr. Pearson, senior surgeon to the British factory in China, assured me he had cured the Hon. Mr. E——ne with it, after every remedy prescribed in India and Europe, for two years, had failed. It preserved a lax state of the bowels, and an increased flow of urine." "It is a mild, safe medicine, and is entitled to its turn, in the very obstinate chronic cases sometimes met with, among the variety and changes of symptoms and of medicines prescribed." Finally, Dr. O'Brien used the copaiba with much success in chronic dysentery, and Dr. Joseph Brown recommends it combined with opiates in the same form of the disease, as well as for the removal of the tenesmus in the acute form.

Favourable, however, as these testimonials of the effects of the copaiba doubtless are, it would appear that, up to the present time, the practice of resorting to it in dysentery has been almost exclusively limited to England. On turning to the various publications that have appeared in France on the subject of the treatment of that disease, or in which the therapeutic virtues of the copaiba are noticed, we shall find that, with the exception of Barbier and a very few others, the physicians of that country either discard it completely as inapplicable and injurious, or at best speak of it as of a remedy of doubtful efficacy in the very cases in which the English have found it useful. In this country the copaiba has met with the same neglect. Dr. Eberle, it is true, remarks, in his work on the Practice of Medicine, one of the best of the class of which we can boast: that this remedy frequently does excellent service, and that he has employed it with unequivocal benefit. But judging from all I have seen, Dr. Eberle forms an honourable exception in this matter; the copaiba being seldom, if ever, alluded to by American writers in reference to its effects in dysentery. This difference of opinion respecting the efficacy of the balsam—the high estimation in which it is held by many eminent physicians in England, and the opposition or neglect it has met with in France and this country—will be accounted for by those who have had opportunities of noticing its effects in the above mentioned disease, by the difference of experience with it in the two countries. In England, practitioners, waiving all preconceived notions, if any such existed, have not hesitated to make a fair trial of the remedy; whereas, the French and the practitioners of this country, entertaining more respect for their theoretical views than for the testimonials of the practical experience of foreigners, or of a few of their countrymen;—not aware perhaps of its having been used advantageously by others; or feeling a reluctance to substitute a new agent for those which they are accustomed to employ, have discarded it untried from their practice. Such, at least, is the only explanation of this difference which occurs to me. I have little doubt that had the remedy been as fairly tried in France and this country as it has been in England, we should find it more generally spoken of in the former country, and among us as a valuable agent in the management of the painful disease in question.

It is impossible to deny that, on a superficial examination of the subject, and laying aside for a moment the testimony above recorded in relation to the usefulness of the copaiba in dysentery, great objections may be urged against the propriety of the practice; for the copaiba, it is well known, is endowed with stimulating properties, and few physicians will, now a days, venture to deny that dysentery consists in any thing else than in an inflammatory condition of the mucous membrane of some portion of the alimentary canal, with or without concomitant affection of annexed or distant organs. But, when we consider that the primary impression of the remedy is made on the stomach, which is *not* the seat of the complaint—that by the time it reaches the inflamed surface it has probably already undergone considerable modifications—that these modifications must still more evidently occur if it is absorbed, and only penetrates to the diseased part through the medium of the circulation;—that if such be the route it takes, the inflamed surface is placed in nearly the same relation to the lining membrane of the stomach as other portions of the mucous tissue in those inflammatory complaints in which the balsam copaiba is known to be used advantageously. If, I repeat, we bear these circumstances in view, and recollect, at the same time, that remedies endowed with stimulating properties do not all act in disease merely in virtue of those properties, and that other articles of the same class are beneficially employed in inflammation of particular portions of the animal tissues, it will not be difficult to discover that something more is required to lead us to abstain from copaiba in dysentery than the simple fact of the former possessing stimulating properties, and the latter being of an inflammatory character. Nothing, indeed, but a positive demonstration of its injurious effects should induce us to reject its use in dysentery;—theoretical speculations should be of no avail, and experience should be appealed to to confirm or infirm the position. But so far from this demonstration having been given—so far from experience having confirmed the validity of the opposition made to the remedy by some, or justified its neglect by others, the references above made to the writings of several eminent English practitioners, will show that the efficacy of the copaiba in dysentery is a fact placed beyond the possibility of doubt; while a consideration of its known effects in diseases of other portions of the mucous membranes, ought to have appeared sufficient, by itself, to lead physicians to think well, *à priori*, of the practice.

Influenced by these circumstances I was induced, several years ago, to resort to the copaiba in a case of dysentery which had proved intractable to the ordinary means. The effects obtained were such as to encourage me to make farther trials of the remedy; and, after duly reflecting on the issue of those cases, and on the phenomena presented, not only in obstinate, but in ordinary cases also, I have no hesitation in expressing the opinion that, so far as my own experience goes, the copaiba is entitled to the praise it has received, and consequently deserves a trial in some forms of the disease in question. It is hardly necessary to say, in the present state of our knowledge respecting the uncertainty of the action of medicinal agents generally, that the copaiba can not be expected to succeed in every case, and that it should not be prescribed in all stages of the complaint. Like other remedies, it will, in this disease, as in other forms of mucous inflammation, often fail, even when used under the most appropriate circumstances; and, so far as I can decide, it would be improper to have recourse to it in the commencement of the attack, before the violence of the inflammation has been reduced by general and local depletion, by diluent drinks, tepid baths, fomentations, mild purgatives, ipecacuanha, opiates, emollient injections, and blisters. Some physicians may perhaps allege, that these means being generally found sufficient by themselves to bring the disease to a favourable termination, there can be no necessity for administering, in addition, a remedy not universally successful and highly offensive to the taste. I am far from denying the sufficiency of the common remedies in ordinary cases of dysentery; like most practitioners I have myself, over and over again, seen them prove entirely successful. But the point at issue is not, whether these means will generally be sufficient, but whether it would be prudent or right to trust to them alone in *all* cases; and whether we should not do better, even in ordinary cases, with, than without, the copaiba. As every one must be aware, dysentery sometimes proves intractable to the most favourite plans of treatment and approved medicinal agents. Now, no one will deny that it is necessary to have recourse, under those circumstances, to additional means, before we can shorten the disease and afford effectual relief to the patient. If such be the case, there can certainly be no necessity to dwell on the propriety of making trial, when other remedies prove insufficient, of one recommended by high professional authorities, and which, from a consideration of its known effects in other mucous inflammations, we are naturally induced to conclude, may prove beneficial in the disease before us. While the question of the greater advantage resulting from its use even in ordinary instances,—in those that may generally be cured by the usual plans alone, resting on authorities which, to say the least, are as good as any that can be brought in opposition,—is not to be set at rest by the mere expression of doubt, or by an assurance of the sufficiency of such plans, but by a comparative survey of the results obtained with and without the remedy.

But even in cases in which depletion has been premised to reduce the force of the inflammation, some discrimination is necessary as regards the employment of the copaiba, because, although in general nothing contraindicates its use so soon as the above object is attained, instances occur wherein the remedy would be likely to give, and has given, rise to effects of a different character from those anticipated, and which may forbid its continuance, or render additional means necessary. The generality of writers who have used this remedy in dysentery, are accustomed to speak in a rather vague manner of its usefulness in certain forms or stages of the latter; and though it is sometimes remarked that it disagrees with the patients, producing nausea, uneasiness, vomiting, and even aggravating the fever and the symptoms for which it is prescribed, nothing is said of the phenomena which may serve to indicate beforehand that it should be abstained from, or the condition of the organs on which such phenomena depend. And yet precise information on this subject is greatly desired, inasmuch as cases may occur in which, although the copaiba had given rise to those symptoms, it may nevertheless be persevered in, provided auxiliary means are used; while in others it would be proper to discontinue it at once. A few words on this subject may not be inappropriate in this place. In some cases the effects in question, nausea, vomiting, &c., depend on a simple nervous irritability of the stomach; itself the result of the existing disease, or of a peculiar idiosyncrasy in the patient. That such is the case cannot be doubted; for these effects sometimes occur under circumstances which forbid our referring them to any other cause. In cases of this kind, the gastric irritability, if it be a simple accompaniment of the disease, manifests itself whenever food, drinks, or medicines are introduced into the stomach, and, if severe, will contraindicate the use of the copaiba; for, if excited by articles of a less offensive character, it is but fair to expect it will be greatly increased by the one in question. In some instances, however, where this irritability is great, and in many others where it is moderate, the copaiba, if used with laudanum or aromatics, or bitters, will be made to sit upon the stomach; and may be prescribed with impunity, and even with beneficial effects.

But though the symptoms mentioned depend often upon the cause assigned, cases occur in which they are evidently the consequence of a more serious condition of the gastric organs—inflammatory irritation. In dysentery, the latter is more frequently encountered than is generally suspected; and in cases in which the stomach itself is not so diseased, it is not rare to find the nausea, vomiting, fever, &c., produced or increased on the administration of the copaiba or other remedies of similar character, are kept up by vascular irritation of the upper portion of the small intestines. It cannot be necessary to enumerate here the signs which serve to distinguish this condition of the gastric organs from simple nervous irritability. Suffice it to remark, that, in every instance in which they manifest themselves without a possibility of being referred to copaiba, the latter should be abstained from; whereas, when they follow the use of this medicine it should be discontinued, and recourse had to the means calculated to check, as speedily as possible, the morbid state on which they depend.

Judging from what I have had occasion to observe, I think I may safely say, that the balsam of copaiba is as serviceable in the secondary stages of acute dysentery as in the chronic form, and that it will be found particularly useful when the stools are rather copious, and contain a large proportion of mucus, or glairy matter mixed with blood. When the griping and tenesmus are still very severe, it will be necessary to combine the medicine with a suitable portion of opium; otherwise it may be used without, in an aromatic mixture,—in cold water, or in an emulsion. The opium may also be required if the copaiba disorders the stomach, and if this effect can justly be attributed to the simple irritability of that organ. In general it is advisable to give the copaiba in moderate and repeated, rather than in large doses; as it is thus less apt to produce griping pain, to purge, and to increase fever. But whether the quantity be large or otherwise, no time must be lost in suspending the remedy, and resorting to antiphlogistics, emollients, and narcotics, whenever symptoms of increased gastro-intestinal irritation and febrile excitement supervene.

The following cases, selected from several of which I have preserved notes, will confirm what has been said of the effects of the copaiba in dysentery.

Case I.—Mr. A——, aged about forty years, of a sanguine, bilious temperament, and generally enjoying good health, requested my attendance in March, 1830. I found him labouring under the usual and well known symptoms of acute dysentery—frequent stools, attended with severe griping pains, and violent tenesmus—

His skin was dry and hot, tongue pointed, red on the edge and tip, and furred in the centre; pulse quick and active. Besides these symptoms there was thirst and nausea. The matter voided was small in quantity, and consisted, for the most part, of slimy mucus, combined with a tolerably large portion of blood.—The urine was scant; but, owing to its being passed with the stools, could not be inspected. Finally, pain was occasioned by pressure of the abdomen, and particularly of the epigastric region, as well as by the movements required to get in and out of bed, or to turn from one side to the other. These symptoms had come on suddenly during the preceding night; were preceded by slight chill, and were apparently the result of exposure to cold.

It is not deemed necessary to present here a detailed account of the variations in the symptoms which occurred daily during the course of the disease, or of all the remedial means resorted to in succession or simultaneously. Let it suffice to remark that, viewing the disease in the light of an inflammation of the large, and of a portion of the small, intestines,—considering likewise that the lining membrane of the stomach was, to a certain extent, implicated,—depletion, both by venesection and leeches around the anus and at the epigastric region, was promptly and repeatedly used. To this were added tepid hip baths, emollient cataplasms over the abdomen, emollient and slightly anodyne injections, sweetened and acidulated gum, barley, and flax-seed water. Under this plan the irritation of the stomach was soon so far allayed as to allow of the exhibition of small and repeated doses of ipecacuanha and opium; Dover's powder with calomel at night; and mild purgatives in the morning.

By these means the violence of the dysenteric inflammation was in a short time subdued,—the fever abated,—the tongue lost its redness and became moist,—the abdominal pain lessened, and the skin became softer. But although from these circumstances it was evident the patient had much improved, yet the disease was far from being effectually checked; for the griping, and particularly the tenesmus, continued troublesome: the matter discharged presented pretty much the same appearance as before, and the pulse remained quicker and the skin warmer than natural.

Under these circumstances I determined to make trial of the balsam of copaiba, the efficacy of which, in diseases of other portions of the same tissue, I had had frequent occasions to observe, and the utility of which, in the present complaint had been, as I knew, recorded by Dr. Pemberton, Dr. Cheyne, and other writers of equal character. Twenty drops of this remedy, combined with eight of laudanum, were directed to be taken every four hours in two table-spoonsful of mucilage. The fomentations on the abdomen, emollient injections, tepid baths, were continued, and light farinaceous nourishment was allowed. With this plan the patient had every reason to be pleased, for in a very little while the tenesmus began to give way, and finely disappeared entirely; the stools, though still somewhat frequent, lost their unhealthy appearance; the urine was passed in much larger quantity than before, and was evidently impregnated with the copaiba;—in short, the patient was relieved of all the most urgent symptoms under which he had laboured. His appetite gradually returned, his digestive functions were restored, his strength increased, and in a few days he acknowledged himself to be as well as he had been for years past. A flannel roller was applied around the abdomen; and although the weather was unsettled, and the temperature rather low, he soon left the house, and resumed his ordinary occupations.

It may be proper to remark, that this gentleman experienced an attack similar to the one just described some years before, and was treated on the depletory and evacuating plan. According to his own statement, the tenesmus and griping continued much longer, and the convalescence was much more protracted on that occasion than on the present. In 1832, he once more came under treatment for the same complaint, brought on by exposure to cold and rain, and inattention to regimen. Yielding to his importunities I administered the copaiba earlier than had been done in the preceding attack. But we had soon occasion to regret this precipitancy, for the stomach being still in a state of irritation and the fever high, nausea, vomiting, pain and weight in the abdomen, and other unpleasant symptoms soon supervened, and compelled a discontinuance of the remedy. As soon, however, as the mischief thus occasioned, and the morbid state on which it depended had been properly corrected, the copaiba was once more resorted to, and proved as successful as it had done before.

Case II.—Casimer L., a coloured man, aged about fifty years, and of a delicate and sickly habit, applied to me for advice in September, 1830. He laboured under the ordinary symptoms of acute dysentery; and informed me that the disease had come on two days before, and had greatly increased since the evening previous to my visit, and soon after his taking a large dose of rhubarb. Without dwelling on the details pursued in this case, I shall merely state that, the evacuations being frequent, the tenesmus violent, the fever high, and the pulse tense and accelerated, the patient was as copiously bled, both generally and locally, as his strength permitted. He was freely purged with castor oil, magnesia, and epsom salts; and immediately after put under the use of ipecacuanha and opium—to say nothing of internal and external emollients. On the third day, finding that the intestinal disease continued with but slight mitigation, that the tenesmus did not yield as rapidly as was desirable under the use of narcotics, and that the loss of blood was no longer admissible, blisters were applied to the inside of the thighs, and anodyne glysters pushed high up the rectum through the medium of a gum elastic tube. As soon as by these means the inflammation and fever had been sufficiently subdued, the copaiba mixture, with the addition of opium was prescribed, and was not long in producing the desired effect; for under its use the tenesmus, together with the rest of the symptoms enumerated, gradually, but completely, disappeared, and the patient was restored to his usual share of health. The convalescence in this case was more tedious than in the preceding, owing probably to the delicacy of the individual, who continued for some time subject, from the least exposure, to intestinal derangements. From these, however, he was invariably relieved by a dose of magnesia or castor oil, followed up by a few drops of copaiba and laudanum, and aided by abstinence from animal food.

Case III.—The subject of this case was a lady, thirty-seven years of age, of a weak constitution and nervous temperament. She had laboured, during some years previous to the present attack, under the dysmenorrhœa and other irregularities of the menstrual functions, for which the tincture of guaiacum, and other remedies of a kindred nature were prescribed. But as they invariably occasioned, even when given in small doses, irritation of the bowels, attended with dysenteric symptoms, they were at first temporarily suspended, and finely discontinued; leeches, opiates, tepid baths, and other palliatives being alone resorted to. These circumstances are mentioned to show the unusual degree of irritability of the intestinal surface in this case, and the caution it imposed as regards the administration of medicines of a stimulating or irritating character, as well as to account for the obstinate nature of the disease about to be described, and the disappointment experienced in obtaining from the remedies used their customary effects.

In the month of July, 1831, this lady was seized with symptoms of acute dysentery, accompanied with high febrile excitement. Antiphlogistics, emollients, and narcotics; bleeding, both general and local; tepid baths, cataplasms, and injections; together with mild purgatives, and ipecacuanha and opium, were resorted to. The former, however, were not carried as far as was desirable,—considering the frequency of the evacuations,—the severe nature of the griping and tenesmus, and the high arterial excitement—in consequence of the prejudices of the patient, and of her great nervous irritability, which was aroused to an unusual degree, and appeared to be aggravated by every fresh loss of blood. For these reasons, and owing to purgatives seeming to do more harm than good, opium was more freely administered than is commonly done, both internally, (by the mouth, and in the form of injections,) and externally. Chief reliance, indeed, was placed in this medicine, aided by emollients.

Under this plan of treatment, progress towards recovery was, as may be supposed, much less rapid than it would have been had it been possible to use more active means. Nevertheless, though the tenesmus continued troublesome and the dejections frequent, slimy, and tinged with blood, amendment in other respects was obtained. The febrile excitement, the abdominal pain, and other inflammatory symptoms, being somewhat lessened, and the stomach apparently free from irritation, the opportune moment seemed arrived for resorting to means specially calculated to put a stop to the dysenteric symptoms. With this view the copaiba was administered in small doses combined with opium. But the expectations placed in its effects were not realized; for under its use the stomach became deranged, and the intestinal complaint aggravated. It was consequently laid aside, and sugar of lead and opium, as well as Hope's mixture of camphor water, nitric acid, and opium, substituted; but with no better effect—the dysenteric symptoms continuing with little or no abatement, and assuming the chronic form.

As it appeared from these circumstances, that no advantage, but rather positive injury, was to be expected from active remedies, or at any rate that the gastro-intestinal organs were not as yet placed in a proper condition to bear their impression, the treatment was once more limited to emollient injections, tepid hip baths, demulcent drinks, opiates, and light farinaceous diet; to which were now added occasional doses of blue pill. After pursuing this plan for some time, it was perceived that, though some amendment in the more urgent symptoms was obtained, it was not sufficiently great to encourage the hope that a speedy stop would be thereby put to the disease; or, indeed, that the means employed could act otherwise than as palliatives. Recourse was therefore had to other remedies; but with the same want of success which had attended previous trials. At length the copaiba was once more tried, and administered with laudanum on cold cinnamon water. Finding that it no longer produced the baneful effects above mentioned, and that the gastric derangement occasioned by it was slight and transient, it was continued for some time,—the dose being increased gradually from fifteen to twenty and twenty-five drops three times a day. Under its use the disease gradually gave way, the patient was allowed more substantial food, a flannel roller was applied around the abdomen, moderate exercise was enjoined, and at the expiration of a few weeks she was completely restored to health.

It is scarcely possible, that in this and the preceding cases I should have attributed to the copaiba a benefit referable to the powers of nature or to the other means used, inasmuch as before it was prescribed the change, in neither instance, had been sufficiently great to lead to the expectation that the disease would disappear without the further interposition of art. Whereas the amendment obtained during its employment was much more striking and lasting than that derived from the previous means; and during the time it was used, no other remedy, likely to contribute in a powerful and prompt manner to a favourable result, was exhibited. Abstinence from solid food, and a restriction to small portions of light farinaceous diet, will, no doubt, produce a very happy effect in dysentery and other abdominal diseases, and there can be but few physicians who have not seen cases in which this simple plan has been sufficient to effect a cure without the aid of any remedial agent, properly speaking. But it is, at the same time, very certain that, except perhaps in very mild cases, it would be unsafe to rely exclusively on this plan in acute dysentery, even after the inflammation has been subdued. It is only suitable in the really chronic form of the disease, and in all instances the effects alluded to, when obtained, are slow in being evinced. As regards opium, which, we have seen, was prescribed freely in the above cases, and without the aid of which one has yet to learn how dysentery can be treated, it is only necessary to remark that, however useful it may prove as an auxiliary, we may doubt whether it can ever alone cure the disease when the inflammation which remains, notwithstanding the free employment of depletory means, is somewhat severe. If, while we use it, the disease disappears, the effect must be attributed in great measure to the powers of nature, which, as we know, are sometimes alone adequate to the task, or to the other remedies simultaneously employed. At any rate, in admitting that the powers of nature and opium are alone sufficient to relieve the patient completely of the disease under which he labours, or that the latter remedy can prove the efficient agent, it is presumable that the cure will not be effected promptly; and that time will be required before the disease gives way entirely. Now, in the above cases, although the irritation was not violent, relief was soon procured, and the cure was completed in a short time after the copaiba could be readily tolerated by the stomach and small intestines. It may be remarked, in conclusion, that the cases above described serve to confirm the opinion expressed in reference to the necessity of the stomach being free from irritation, and of the febrile excitement being moderated before the copaiba can be used advantageously. A neglect of these circumstances during the second attack under which the subject of the first case laboured, led to injurious consequences; while, on the contrary, as soon as the gastric irritation was subdued, the copaiba was used successfully. In the second case, the subject of which was throughout remarkably free from stomach affection, the copaiba was advantageously employed as soon as the inflammation had been subdued. In the third, again, the gastric and intestinal organs being inordinately sensitive, it was some time ere the remedy could be employed; yet, as soon as this morbid state was relieved, the desired effect was obtained. It may be thought that I have not attributed sufficient influence to ipecacuanha or to purgatives, and that had I used them more freely, the copaiba might have been dispensed with entirely, or, at least, that the patients might have been more quickly relieved. On this subject I must be allowed to entertain a different sentiment, and frankly to admit that I have not yet been made sensible of the advantages resulting from active and repeated purging in dysentery. That the bowels should be freely emptied of their contents at an early period of the attack—depletion, general and local, being premised if the inflammation runs high,—is a fact I am not disposed to dispute. Nor does it appear less proper, that they should be kept open throughout the course of the disease, with a view of allaying the griping and the tenesmus. But in order to meet these indications there can be no necessity for repeated and active purging; as the first can be met by a mercurial cathartic or two, followed by a few doses of some mild aperient; while the frequent use of emollient injections will in general suffice to keep up a soluble state of the bowels. Indeed, while this plan is equally efficient in clearing the intestines of all irritating matters, it is superior to the other in occasioning less distress to the patient, and in being less likely to aggravate the disease or retard recovery. In order to produce the evacuant effects expected from them, purgatives must pass along the whole tract of the alimentary canal—over the diseased as well as the healthy portions—and there occasion an impression of greater or less force according to the degree of their activity; or they are absorbed into the circulation, and operate on particular portions of the tube for which they have an affinity. In either case the effect must be of a stimulating character, for the secretory process is greatly promoted, and the peristaltic action of the intestines excited. If such be the case, it can scarcely fail to follow, that active purgatives will often, particularly if frequently repeated, occasion more distress and annoyance to the patient, as well as more irritation of the inflamed surface, than is safe, or is compensated for by the evacuation of fluid. They may thereby tend to aggravate, or at least to keep up the disease, and should therefore give way to the employment of the other means above mentioned, which either act mildly, or, as in the case of injections, operate on the diseased parts, and, while emptying them of their irritating contents, tend to assuage pain and hasten recovery.

In respect to ipecacuanha, though I think highly of its effects, either when used alone or in combination with calomel or opium or both—particularly in acute dysentery, I am not prepared to rely exclusively upon it in all stages of that disease, or in the chronic form; and whenever the violence of the disease is moderated, I have for many years been in the habit of substituting other means, under the impression that they proved more successful. These opinions will doubtless excite the censure of many of the readers of this Journal; for I am aware that a large portion of the members of the profession in this country have formed a different estimate of the virtues of purgatives and of ipecacuanha in dysentery. But so fully persuaded am I that the plan of treatment advocated in these pages, and which could be shown to have the sanction of high professional authorities, is, to say the least, as successful as the other, and indubitably less distressing to the patient, that I have little doubt much of the opposition it may encounter will cease the moment it is put to the test of actual experience.

[To be concluded in the next Number.]

ON THE ABSORPTION OF SULPHURIC ACID, WHEN INTRODUCED INTO THE STOMACH.

BY A. BOUCHARDAT and the late M. CÆSAR COURIARD.*

It has been hitherto supposed that the mineral acids destroy life either by the local impression which they produce on the coats of the stomach, or by the inflammation and disorganization which they cause in that viscus. Since it is known that sulphuric acid speedily coagulates albumen and all albuminous liquids, it becomes difficult to understand how, when taken internally, this poison should become absorbed so as to react upon the blood; yet it is possible that the acid may enter and be prevented from combining with albumen, just as antagonist bodies may be intermixed and prevented from entering into combination, while exposed to the influence of an electric current. Or, allowing that an insoluble compound of acid and albumen is formed on its first absorption into the smaller vessels, it is possible to conceive that this compound may itself become absorbed, and react upon the blood in the larger trunks. But without resting the opinion upon mere suppositions, let us expose the facts which have induced us to admit that sulphuric acid may become absorbed into the circulating system.

1st Observation. A young woman, aged eighteen, swallowed, as it was conjectured, about an ounce of the sulphate of indigo. Immediately afterwards she felt an acute pain in the throat and in the stomach. She threw herself on the ground, and her cries soon brought her neighbours, who found her vomiting a bluish-coloured liquid, which effervesced on the pavement. A quantity of oil and milk was immediately exhibited; the milk was speedily thrown up coagulated and of a blue colour. When brought to the hospital three hours afterwards she was in the following condition: Her face was pale, her features somewhat altered, her eyes were sunk, and her lips of a violet tinge. There was a yellowish coloured spot on the upper lip at each angle of the mouth. The tongue was blue, and the throat was painful, with a strong sense of constriction. The epigastrium was tender; but there was no pain in the abdomen. The respiration was difficult, there were great anxiety, coldness of the upper extremities, and a quick and small pulse. Her intellect was clear, and her answers to the questions put were sensible and proper. Four drachms of calcined magnesia in a pint of water were administered. A great portion of this mixture was rejected by vomiting, accompanied by bluish clots. In a few hours the pain in the throat became very severe, the upper extremities cold, and pulse imperceptible. The urine which she passed had a *slight tinge of blue*. She continued to become worse, vomiting of chocolate-coloured matter supervened; and she died about *eleven* hours after having taken the poison.

The body was examined twenty-seven hours after death. The head presented no particular appearance. There was no sign of corrosion in the mouth. The mucous membrane of the pharynx and œsophagus was easily detached in dry white brittle layers. The heart was filled with three ounces of *coagulated blood;* and the aorta contained brown and semi-liquid *clots*. The lining membrane of this vessel was of a bright red colour. The stomach was distended, containing two ounces of a dark-coloured liquid. The mucous membrane was carbonized and of the colour of soot, intermixed with slight patches of redness throughout its whole extent, except for about an inch near the pylorus, where it was of a rose-red colour. It was easily detached in layers, but there was no trace of ulceration. The lining membrane of the duodenum was inflamed and ulcerated, and in parts corroded and blackened. A dark-coloured mucus was found in the small intestines, and patches of a blue colour were scattered through the colon. The femoral arteries were filled with *semicoagulated, dark-coloured blood.* The cavity of the left femoral artery was completely obstructed by the clot.

The whole progress of this case, taking the symptoms observed during life with the appearances found after death, justifies us in concluding that the deceased was not destroyed by the directly corrosive action of the poison on the digestive organs, but indirectly by the coagulation of blood in the circulating system. We endeavoured to coroborate the evidence furnished by this case by some experiments performed on dogs; but we found it difficult to say on these occasions, whether death was owing to the direct or indirect action of the poison. When very diluted sulphuric acid is given to dogs, there is no more poisonous action than when any ordinary acid liquid containing sulphuric acid is given to a human being. In these instances the action of the acid is superficial, it does not appear to become absorbed.

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* From the British and Foreign Medical Review.

2d Observation. In October 1835, a young woman presented herself at the Hotel Dieu, complaining of having suffered much from some medicine which she had taken the day preceding. On examination, a dark yellow spot was seen on her face near the commissure of the lips, her tongue and the mucous membranes of the mouth were highly inflamed, and the act of deglutition was painful. She was strictly questioned as to whether she had attempted to poison herself, but this she positively denied. It was evident that she was in a state of pregnancy, but this she also denied. The prescription of the medicine which she had taken directed a mixture of four drachms of sulphate of magnesia in three ounces of chamomile water; but when the bottle was examined, it was found to contain two drachms of a liquid consisting of equal parts of sulphuric acid and water. Some gum-water was administered to her which she continued to swallow with great difficulty; but it was almost instantly rejected. Her pulse was small and frequent: there was scarcely any burning sensation in her stomach, and indeed her only complaint was of pain in her throat. After a quiet night she was found much more composed, and could swallow more freely. Her pulse, however, was depressed, and her extremities were cold. During the second night she suffered from violent cramps in the lower extremities and of the entire loss of feeling in her right leg, which was found to be extremely cold at its lower part. On the following morning the symptoms abated; but there was no return of sensation in the right leg, her pulse became weaker and weaker; and on the third night after her admission she died without appearing to suffer.

On inspection, the mucous membrane of the œsophagus was found of a yellowish-black colour; it was covered with a similarly-coloured liquid, which was so adherent to it as almost to resemble a false membrane. The lining membrane was thickened, but was easily detached in layers. About five ounces of a dark yellowish liquid were found in the stomach. The mucous membrane of the viscus was in the same condition as that of the œsophagus; and its surface was covered with a dark yellowish mucus, which was remarkably firm and strongly adherent at the piloric extremity. On removing a portion of this, the membrane beneath was found as it were carbonized. The duodenum and the small intestines presented a similar appearance. The heart contained about *three ounces of coagulated blood*, the aorta was almost filled with *gelatinous clots;* and the femoral artery of the right leg was completely obliterated by a cylinder of *dark coloured* and *firm coagula.* [The liquid found in the stomach and the *coagula* of blood contained in the femoral artery were submitted to an elaborate analysis, which we must here omit. The result will appear from the observations which follow.]

This evidence of the presence of sulphuric acid in the blood is not very satisfactory; for there were only *traces* of sulphate of barytes, and merely the odour of sulphurous acid was perceived: but if to these results we add the symptoms observed during life, the coldness of the extremities, the death of the lower extremity before general death, and presence of a coagulum obstructing the femoral artery, we have reason to conclude that, in both of the observations reported, death was to be ascribed to the coagulation of the blood by the action of sulphuric acid.

The above facts show that sulphuric acid may destroy life in two ways, 1, by its direct action: 2, by absorption. In the first case the membranes of the alimentary canal are deeply carbonized and corroded, death is preceded by an acute gastroenteritis and peritonitis, the stomach and intestines are distended with gas, and death ensues in the midst of the acutest suffering. If the sulphuric acid were combined with indigo the colouring matter does not appear in the urine: such are the characters of *local* poisoning. In the *second* case when sulphuric acid is *absorbed*, the local suffering is inconsiderable and the abdomen is not distended. There is no peritonitis, the pain in the epigastrium diminishes, and there is an appearance of recovery; but the pulse sinks, the extremities become cold, painful cramps supervene, and death takes place at a time when the local symptoms would lead us the least to expect that event. If this view of the operation of sulphuric acid be correct, the treatment of poisoning by this body ought to undergo some modification. Thus instead of administering calcined magnesia, it would be proper to employ the bicarbonate of potash or soda, either of which is rapidly absorbed. By their entrance into the circulation, these alkaline salts may have the effect of destroying the coagula which might have been produced by the acid.

[Remarks. We need hardly say that this paper is worthy of attention from the novelty of the views which are displayed in it. Sulphuric acid, like the other mineral acids, has been considered by toxicologists to operate independently of absorption for the following reasons: 1. Dilution with water promotes the absorption and consequently accelerates the operation of many poisons, but dilution destroys entirely the effect of sulphuric acid in depriving it of its corrosive properties. 2. If absorbed, the acid would immediately obstruct the smaller vessels by coagulating the blood contained in them. The vital properties of a part are not sufficient to prevent this chemical action, since it is an effect every now and then witnessed in the gastric vessels as a result of the action of the acid through the coats of the stomach. 3. The acid has never been detected in the blood of persons poisoned by it. Strong as these reasons appear for the non-absorption of sulphuric acid, they cannot of course prevail against any new facts which may lead to a contrary presumption. Still the evidence against the present doctrine ought to be unequivocal; since, as the authors of the paper suggest, an alteration in our views respecting the operation of such poisons may materially modify the mode of treatment adopted. We must, however, maintain that the cases here detailed do not in our judgment present any such facts.

Although we do not pretend to deny the *possibility* of a mineral acid, like the sulphuric, entering into the blood by absorption, (indeed this may be necessary to its ordinary medicinal operation,) yet we contend the point still remains unsettled, and it will so remain, until analyses of a less equivocal nature establish its presence in the blood of persons who have taken it. Sulphuric acid forms a very intimate combination with albumen; and it would be by no means difficult to detect it in a coagulum where it really had existed in sufficient quantity to produce coagulation. In the mean time the hypothesis of the authors of this paper involves this parodox: the acid is capable of traversing the minute capillaries without coagulating their contents or blocking up their canals, while it recovers its coagulating power on the blood when it reaches the heart, aorta, and larger arteries. It will render the femoral artery impermeable by a consolidation of its contents, after having had its coagulating power suspended in the numerous vessels through which it must have passed before it could have reached that artery.]—*Annales d'Hygiène. Avril,* 1837.

MEDICAL STATISTICS.

STATISTICS OF THE LUNATIC ASYLUM AT AVERSA (NAPLES).

BY FILIPPO VOLPICELLA.

Proportion of the Sexes. The proportion of male inmates to the females is usually about two to one: thus, in 1833, out of 640 insane, 429 were males and 211 females, who were thus distinguished:—

Maniacs	Males, 73	Females, 50
Monomaniacs	207	87
Fatuous	60	40
Idiots	58	23
Epileptic, with delirium	31	11

A little less than half the insane are monomaniacs, and a fifth part maniacs; of these, the chance of cure is greatest: there is but little hope of the cure of the fatuous, still less of the idiots, and none at all of the epileptic.

Occupation. With regard to the occupations of the men, there were 35 priests, 9 monks and friars, 5 public officers, 45 soldiers, 7 tradesmen, 70 gentlemen having property, 4 advocates, 2 schoolmasters, 6 copyists, 6 students, 10 sailors, 58 artisans, 124 peasants, 14 house-servants, 9 porters. Of the women, 2 were nuns, 37 gentlewomen, 88 artisans, 71 peasants, 13 servants.

Causes. As far as could be ascertained, these were as follows:—

Physical Causes. Masturbation, male 3; blindness, male 1; venereal excess, male 12; excessive drinking, male 27, female 12; starvation, male 4; insolation, male 2; repelled eruptions, male 6; repelled lactation, female 2; suppressed and irregular menstruation, 28; suppressed gonorrhœa, female 2; syphilis, male 1; piles, male 4; gout, male 2; fever, male 3, female 1; hysteria, 2; encephalitis, male 1; apoplexy, male 9; epilepsy, male 25, female 8; congenital idiocy, male 8, female 2; hereditary madness, male 1; chronic headache, male 1.

Moral Causes. Natural insuperable sadness (*tristezza*), male 48, female 25; wounded vanity, male 8, female 1; disappointed ambition, male 12; female 4; regrets, male 10, female 2, rage, male 3, female 1; despair, male 1; discouragement (*avvilimento*), male 2, female 1; fear, male 15, female 9; terror, male 13, female 3; hatred, male 5; religious scruples, male 19, female 13; disappointed hope, male 3, female 2; deluded hope, male 4, female 1; remorse, male 1; infidelity, conjugal, male 4, female 1; jealousy, male 21, female 18; disappointed love, male 28, female 21; nostalgia, male 5; excess in study, male 1; excessive labour, male 1; family quarrels, male 11; domestic anxieties, male 2; ruined fortune, male 24; poverty, male 52, female 31; exalted imagination, male 6, female 3; death of relatives, male 5, female 7; attendance on the insane, male 1; depraved habits, male 4; sensuality, male 8, female 11.

The following is a Table of the per centage of Cases, Cures, and Deaths, for the two decennial periods between 1813 *and* 1832.

	CASES.		CURES.		DEATHS.	
	Periods.		Periods.		Periods.	
	I.	II.	I.	II.	I.	II.
January	5 5-10	5 1-10	7 8-10	5 8-10	14 4-10	13 8-10
February	4 4-10	7 2-10	2 6-10	6 2-15	7 4-10	12
March	6 3-10	7 7-10	6 9-10	11 5-10	9 5-10	7 9-10
April	8	7 2-10	5 9-10	10 5-10	4 6-10	7 4-10
May	9 9-10	11 1-10	5	7 2-10	5 2-10	1 6-10
June	11 2-10	11 2-10	8 4-10	5 8-10	3 9-10	6 7-10
July	10 8-10	12 8-10	11 1-10	11 5-10	5 2-10	7 6-10
August	12 5-10	10 9-10	8	8 6-10	9 3-10	6 9-10
Sept.	8 6-10	8 4-10	12 1-10	8 9-10	7 8-10	6 4-10
October	7 9-10	8 3-10	12 6-10	10 2-10	9	6 2-10
Novem.	6 9-10	5 5-10	9	9 2-10	12	8 4-10
Decem.	8	4 6-10	10 6-10	4 6-10	11 7-10	10 1-10

The admissions, in the course of these twenty years, have been—men 2775, women 1122; total 3897. The readmissions, from relapses, were—men 22, women 39; total 61 (131 in the paper). There have escaped, of men 70, women 1; total 71. Relieved and intrusted to their friends, men 369, women 179; total 548. Cured—men 1072, women 442; total 1514. Dead—men 909, women 313; total 1,222. The number admitted, and of those previously in the hospital, are, to the cured, as 1 to $2\frac{67}{100}$ of the males, and as 1 to $2\frac{62}{100}$ for the females: to the dead, as 1 to $3\frac{15}{100}$ for the males, and as 1 to $3\frac{71}{100}$ for the females. [This is evidently a mistake: it should be, the proportion of cures, &c. to ad missions and patients already in confinement; but, for want of the latter element of the computation, or even an average of annual admissions, I cannot prove the correctness of the assertion.—*Translator's note.*]

The deaths for one year were—sanguineous apoplexy, males 14, females 8; apoplexy supervening upon a violent epileptic attack, males 7, females 1; serous apoplexy, females 5; aneurism of the heart, male 1, females 2; angina œsophagea, male 1; convulsive asthma, male 1, females 4; synochus, males 3, female 1; colliquative diarrhœa, males 8, females 2; dysentery, males 7, females 11; nervous phthisis, males 9, (perhaps marasmus is meant;) phthisis pulmonalis, males 10, females 3; phthisis mesenterica, males 8, females 7; intestinal phthisis, (probably ulceration of Peyer's glands,) female 1; hæmoptysis, male 1; gangrene from lying, male 7; pneumonia, males 2, females 2; hydrothorax, male 1, female 1; ascites, male 1, female 1; anasarca, males 3, females 3. Total males 84, females 52.—*Filiatre Sebezio.* 1836.—*Ibid.*

STATISTICS OF INSANITY IN WESTPHALIA IN SAXONY.

The number of cases of congenital idiocy in the Prussian province of Westphalia, amounted, in 1834, to 454 males and 274 females; together to 728: equal to 47 per cent. of the total number of cases of insanity in the province, which amounted to 1535, or to one in 846 of the population. Of this number 507 were males, giving one case for every 712 male inhabitants, and 339 females, or one for every 1010 of the female population. Classed according to religious denomination, there was one case for every 962 of the members of the reformed church, one for every 786 of the Roman catholic population, and one for every 758 of the Jewish population.

In the province of Saxony there were, in 1836, 1580 insane in a population of 1,529,607, or one in 968. Of this number 882 were males, and 698 females: namely, unmarried, males 732, females 526; married, males 114, females 86; widowers 36, widows 86. Classed according to age, the numbers were—under fifteen years of age, 85 males and 57 females; between fifteen and thirty, 286 males and 212 females; between thirty and forty-five, 289 males and 226 females; between forty-five and sixty, 177 males and 147 females; and, lastly, above sixty years of age, forty-five males and fifty-six females.

It is a matter of extreme difficulty to decide with certainty upon the cause of the disease in a vast number of cases, but it often happens that a probable cause may be assigned. In this way, corporeal causes were assumed in 196 males and 137 females; mental causes in 127 males and 114 females; hereditary predisposition in 119 males and 66 females; and, lastly, no probable cause could be assigned in 440 males and 381 females. Under the head of dementia were classed 657 males and 485 females; under that of monomania, 178 males and 177 females; and under that of mania, 47 males and 36 females. The first class comprehended 118 epileptics, the second 32, and the third 12. Of the total number, 597 belonged to towns, and 983 to the country.—*Medicinische Zeitung.*—Ibid.

STATISTICS OF SUICIDE IN LONDON.

BY M. MOREAU DE JONNES.*

I. *Number of Deaths from Violence, in general.*

	1824.	1828.	1829.	1830.	1831.
Suicide . . .	52	41	35	25	48
Executed . . .	10	1	26	7	6
Murdered . .	2	6	4	2	5
Poisoned . . .	4	27	7	4	7
Found dead . . .	5	15	6	13	5
Drowned . . .	149	150	36	97	131
Burnt . . .	36	47	53	61	35
From famine . .	1	1	0	0	1
From excessive drinking	5	7	3	4	0
From suffocation .	5	10	10	5	5

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* From an unpublished work on the Population of London.

II. *Number of Suicides in London, during a century and half.*

From 1690 to 1699	236	From 1760 to 1769	351
1700—1709	278	1770—1779	339
1710—1719	301	1780—1789	224
1720—1729	478	1790—1799	274
1730—1739	501	1800—1809	347
1740—1749	422	1810—1819	362
1750—1759	363	1820—1829	381

III. *Number and Proportion of Suicides in the chief Capitals of Europe.*

Places.	Periods.	Suicides.	Proportion to Population.
Berlin	1813—1822	360	1 in 750
Copenhagen	1804—1806	100	1— 1,000
Naples	1828	330	1— 1,100
Hamburg	1822	59	1— 1,800
Berlin	1799—1808	60	1— 2,300
Paris	1836	341	1— 2,700
Milan	1827	37	1— 3,200
Berlin	1788—1797	35	1— 4,500
Vienna	1829	45	1— 6,400
Prague	1820	6	1— 16,000
Petersburgh	1831	22	1— 21,000
London	1834	42	1— 21,000
Naples	1826	13	1— 27,000
Palermo	1831	2	1—173,000

"From this it appears," says M.M. de Jonnès, "that the inhabitants of London are much less inclined to suicide than those of most of the cities of Europe: consequently, that the notion that the climate of England predisposes to suicide is altogether erroneous."—*Gazette Méd. de Paris. Feb.* 24, 1838.

STATISTICAL NOTICE OF THE CHOLERA-EPIDEMIC IN BERLIN, IN THE YEAR 1837.

BY DR. CASPER.

Weeks.			Sick.	Dead.
1.	August	12-18	117	65
2.		19-25	575	305
3.		26, September 1	693	395
4.	September	2-8	573	335
5.		9-15	486	331
6.		16-22	513	289
7.		23-29	254	181
8.		30, October 6	128	120
9.	October	7-13	65	42
10.		14-20	59	37
11.		21-27	44	32
12.		28, November 3	29	18
13.	November	4-10	15	16
14.		11-17	6	5
15.		18-24	3	1
16.		25	1	2
Total			3561	2174

The cholera-epidemic of 1831 prevailed, in Berlin, during a period of forty-six days longer than that of 1837. The numbers, in 1831, were—*taken ill*, 2271; *died*, 1426; being less than in 1837 by 1290 and 748 respectively, and making the proportion of deaths to the sick—in 1831, 0.372 : 0.628; in 1837, 0.391 : 609. —*Wochenschrift f. d. ges. Heilkunde. Feb.* 10, 1838.

ABSENCE OF THE RIGHT LUNG.—(Cyanosis.)

The following deformities were found in a child, six weeks after its birth. From birth it had been affected with cyanosis: death was attended with symptoms of congestion in the head. The right lung was entirely wanting: there was only a rudiment of the right bronchus; no right pulmonary artery or vein. The septum ventriculorum cordis was imperfect. The origin of the aorta communicated with both ventricles. The foramen ovale and the ductus arteriosus were both open, the latter widely so, this supplied the left (the only) lung with blood, as the pulmonary artery was imperforate at the base of the heart.—*Wochenschrift für die gesammte Heilkunde.* No. 33. 1837.—*Ibid.*

EXPERIMENTS ON THE SPERMATIC ANIMALCULÆ, AND ON SOME OF THE CAUSES OF STERILITY IN WOMAN.*

Importance of the Use of the Microscope in Physiological Inquiries.

M. Donné, whose name we have had occasion of late years to mention with praise as an able and ardent investigator of physiology, is the author of the following observations, communicated to the Royal Academy of Sciences at Paris.

The spermatic animalcules (*zoospermes*) have been submitted to numerous examinations since the days of Lewenhœck, who was the first to describe them with any degree of accuracy; but hitherto little progress has been made in the discovery of their natural history, or of the part which they perform in fecundation.

M. Donné has studied them in a new point of view. He placed them in contact with the principal fluids of the body, for the purpose of watching the effects of these fluids on their vitality, and general phenomena.

By following out this train of inquiry, he has been led to conjecture that certain changes in the properties of the mucus of the vagina and of the uterus may exercise a deleterious influence on the animalculæ of the male semen, and may thus as effectually prevent impregnation, as if there was a radical defect in the female organs of generation.

In this point of view, we perceive that some light may possibly be thrown on the hitherto most obscure subject of *sterility*.

M. Donné commenced his researches by examining the effects of the blood itself, of milk, of the healthy vaginal and uterine mucus, of the purulent discharge in syphilis and in gonorrhœa, of the saliva, and of the urine on the spermatic animalculæ. He found that they continued to move and live in some of these fluids; while in others they immediately perished.

Thus blood, milk, and pus did not seem to have any visible effect upon them; but the urine and the saliva appeared to kill them at once. The mucus of the vagina and of the uterus was, as might be expected, perfectly innocuous; even the presence in it of new infusoria—which have been discovered by M. Donné in certain vaginal discharges, and to which he has given the name of *trico-monas*—did not appear to affect the spermatic animalculæ.

There are some cases, however, in which the vaginal and uterine mucus has a noxious influence. The investigation of this point constitutes the most important theme in M. Donné's memoir. He has found, we are told, that the mucus of the vagina in some women, apparently in perfect health, is such that the spermatic animalculæ perish immediately in it.

This noxious quality belongs sometimes to the vaginal, at other times to the uterine mucus. Having satisfied himself of this fact, he next inquired whether the mucus exhibited any appreciable changes of quality from its normal properties and condition; and he thinks that he has succeeded in discovering certain traces of such changes in the chemical constitution of the secretion.

He says that the mucus of the vagina, from the vulva to the os tincæ, is always *acid*, whereas that of the cervix and body of the uterus is always *alkaline.* (!)—Now he supposes that in certain habits and in certain states of the system, there is a disposition to excess of acidity in the one fluid, and to an excess of alkalinity in the other. The probability of these novel ideas rests upon results of several experiments, which M. Donné has lately performed.

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* Med. Chir. Rev.

The second part of M. Donné's Memoir is occupied with the investigation of involuntary seminal discharges. This subject has been recently examined by M. Lallemand of Montpelier; but his work is rather of a practical than of a physiological nature.

The chief object of our author's researches has been to discover, if possible, some sure diagnostic signs, by which the presence of seminal matter may be recognized in the urine. He has very satisfactorily shown that the signs, which the Montpelier professor has pointed out for this purpose, are quite nugatory.—The chief of these are the thick and troubled state of the urine, its sickening fetid odour, a cloudy flakiness through it, and a glairy filamentous and greenish-coloured deposit adhering to the bottom of the vessel.

Now all these characters may exist in urine, which has no admixture of seminal fluid; and, on the contrary, spermatic animalculæ have been detected by the microscope in urine, which was quite limpid and transparent, or perhaps only slightly mucous.

It is by the use of the microscope alone that we can hope to discover the presence of the seminal fluid; and this mode of diagnosis is the more satisfactory, as it seems that the characteristic form of its animalculæ is not at all altered by the action of the urine. As their specific gravity is greater than that of the urine, they always fall to the bottom of the vessel; and thus the smallest quantity of semen is readily discovered.

To remove all source of ambiguity, M. Donné has made several experiments to ascertain whether there is ever semen present in the urine, when the person is in perfect health, and has no symptom whatsoever of seminal weakness.

He thinks that he has quite satisfied himself that such is never the case in health, unless indeed there has been an emission shortly before the urine was discharged; for under these circumstances there are always some animalculæ discoverable, according to his researches. With the exception of such a case, he has never detected them in the urine of a person in health; and he therefore points out the great importance of attending to this symptom—the existence of spermatic animalculæ in the ordinary urine—before the disease has made much progress.

The memoir concludes with the reports of several cases, in which the existence of seminal weakness was suspected, and where M. Donné was requested to examine the urine with the microscope. In some, the presence of the spermatic animalculæ was readily discoverable; while in others the suspicion was proved to be groundless.

In closing these brief remarks, we cannot too urgently impress on the attention of medical men the very high importance of using the microscope more frequently than they have done hitherto, in examining the products, healthy as well as morbid, of animal life. In conjunction with the valuable assistance of chemistry, this simple instrument promises to reveal many of the mysteries of life and of its wonder-working operations.—*Gazette Medicale de Paris.*

THERAPEUTICS AND PATHOLOGY.

ON THE USE OF THE SUBCARBONATE OF IRON (*FERRI SESQUIOXYDUM,*) IN HOOPING COUGH.

BY DR. STEYMANN.

Of all the medicines recommended in this painful and lingering disease, the subcarbonate of iron, according to Dr. Steymann, when exhibited in the second stage, is by far the best.

The following cases prove the utility of this remedy.

Case I. Henri Schrœder, eleven years old, had been suffering for nine weeks from hooping-cough, for which all the usual remedies had been exhibited, without relief. The subcarbonate of iron was administered in the dose of two grains every three hours. After the tenth dose of this remedy, all the symptoms were considerably diminished. Ten doses more, each consisting of five grains, completely subdued the disease.

CASE II. The sister of the former patient, five years old, was affected with the cough at the same period, had been treated in the same way, and with the same results. She commenced with two grains of the subcarbonate every three hours; this was increased to three grains, which completed the cure in about eight days. From the first dose the symptoms were alleviated.

CASE III. Jules Etier, five years old, was placed under the care of Dr. S. in the third week of the disease. The cough did not yield till she took the iron: and, after four days' treatment she was completely cured. Dr. S. says he never heard the fits of coughing more violent than in this child.

Dr. S. holds out a caution against the exhibition of this remedy in the early stages, as he has found it at this period produce considerable irritation, in lieu of hastening the cure. In the first stage he employs leeches, opiates, and emetics; and, before commencing the subcarbonate, he recommends the exhibition of an emetic.

The following he has found a convenient formula: Subcarbonate of iron, twenty-five grains, white sugar, a sufficient quantity to make into ten powders; one to be taken every three hours. This dose is increased according to the age of the patient, adding a grain for every year. The effect is generally prompt; and in a few days nothing remaining but a slight catarrhal cough, which gradually disappears.—*Bulletin Gén. de Therapeutique. Mars*, 1838.—*Brit. & For. Med. Rev.*

ON THE USE OF STRYCHNINE.

BY M. BALLY, PHYSICIAN TO THE HOSPITAL OF LA CHARITE.

In addition to the violent spasmodic contractions produced by strychnine, M. Bally has observed the following symptoms of disturbance of the cerebral circulation: an appearance of stupor, vertigo, tinnitus aurium, sleeplessness, and turgescence of the capillaries of the face. The strychnine, therefore, ought never to be employed in diseases combined with, or resulting from, determination of blood to the brain, The use of the strychnine should be restricted to cases of paralysis depending on disease of the spinal marrow; and, where this part has suffered no severe injury, the greatest benefit is often derived from its employment. One remarkable case is mentioned, of a man, about fifty years of age, paralytic for five years, who was radically cured by the internal employment of strychnine. M. Bally does not strongly recommend this remedy in cases of amaurosis, on account of their frequent complication with disease of the brain. In paralysis of the extensor muscles of the hands and feet, some benefit is derived from the administration of the strychnine by the skin; but more credit is due to time than to the remedy. In cases of colica pictonum, a combination of strychnine and hydro-chlorate of morphine has been found highly successful; one-sixteenth grain of the former with one-thirty-second grain of the latter were given in the form of pill, at first twice a day and subsequently more frequently. M. Bally's object in administering this combination is—1, to alleviate pain; and, 2, "to transform the disease of the spinal marrow into another morbid affection much less severe and more easy of cure." No success attended the use of strychnine in cases of diarrhœa and dysentery, though the nux vomica is strongly recommended in those diseases by Hufeland. With regard to the dose of the strychnine, M. Bally recommends us to begin by one twentieth or one-sixteenth, and, in case the stomach is not very irritable, by one-eighth of a grain. The dose may be increased at intervals of three or four days to one, two, three, or four grains. It is rarely necessary or prudent to surpass this last dose. Two or three grains are usually sufficient to produce the desired effects. In some instances the effects produced by the strychnine are very violent; so violent, that it has been sometimes necessary to fix the patient firmly to his bed, as the strength of two persons could scarcely hold him down.—*Bulletin Générale de Therapeutique. February*, 1838.—*Ibid.*

ON AN EPIDEMIC PHTHISIS PULMONALIS.

BY M. MENARD.

[Read before the Academy of Medicine, 15th May, 1838.]

During the last four years, consumption has been so prevalent at Lunel and the neighbouring communes (in France,) that M. Menard has been led to regard it as epidemic. The disease generally begins by some visceral inflammation, chiefly of the stomach and intestines, the symptoms of which mask those of the pulmonary affection. Hæmoptysis is very rare, only having occurred thrice in thirty-three cases; and cough is very slight, particularly at the commencement. During the period of this supposed epidemic, the inflammatory affections of the chest, pleurisy, pneumonia, and pulmonary catarrh, were not observed more frequently than usual. On dissection, the ordinary tubercular state of the lungs is found, together with the changes belonging to the visceral inflammation; which, it is proper to observe, accompany the disease to its close.—*Bull. de l'Acad. Roy. de Méd.* 30 *May*, 1838.—*Ibid.*

ANIMAL CHEMISTRY.

MICROSCOPICAL RESEARCHES ON THE COMPOSITON OF THE VACCINE FLUID.

BY M. DUBOIS, OF AMIENS.

[This is a memoir read before the Royal Academy of Medicine: we can only find room for the concluding part of it, which gives the summary of the results obtained.]

1st. The vaccine virus, whether liquid or dry, shows no signs of globules.

2d. The same virus, examined by means of the strongest magnifiers, shows no traces of animalcules.

3d. In its recent state, (that is to say, during the first hours that follow its removal from the pustule,) this virus is remarkably fluid and limpid: by degrees it takes a more solid form, and shows a kind of crystallization.

4th. In its state of desiccation, we observe two orders of physical arrangement: viz. 1, lengthened lines, both opaque and transparent, and very slightly interlacing; and, 2, a very minute network.

5th. These arrangements are essential to good vaccine lymph, and show themselves in all cases exactly in the same way.

6th. When these appearances of the virus are not to be found, the vaccine has lost its contagious properties.

7th. These material conditions may fail either from an anomalous development of the pustules, and consequently from a constitution previously vitiated, or from accidental causes.

8th. A high and low temperature (ebullition and congelation) hinder the establishment of these physical arrangements.

9th. When the vaccine virus, through the operation of these causes, has not been able to form itself in this way, its loses its contagious properties.

10th. It is not by killing the animalcules that a high and low temperature destroy the properties of vaccine, but by altering its material conditions.

11th. Microscopic examination of the fluid can assist in determining the existence or non-existence of its preservative properties.—*Bull. de l'Acad. Roy. de Med.* 30 *Avril*, 1838.

ON THE COMPARATIVE ANALYSIS OF HEALTHY BILE AND THAT CONTAINING CALCULI.

BY PAULO MURATORI.

The first experiments of the author were made upon biliary calculi, of which he found the white portions composed of pure cholesterine, the yellow of dried and altered bile.

In the experiments upon the bile, with or without calculi, he took care to use such re-agents as should not engender fresh products; as appears to have been the case in the analysis of Tiedemann and Gmelin.

A thousand parts of the human bile are composed of

	Healthy bile.	With calculi.
Water	832	786
Peculiar fatty matter	5	8
Colouring matter	11	9
Cholesterine with soda	4	without soda, 35
Picromel	94.86	96.5
Fleshy extractive	2.69	5.25
Mucus	37	46
Soda	5.14	0
Phosphate of soda	3.45	5.50
Phosphate of zinc	3	5
Chloride of sodium	1.86	3.75
	1000	1000

From this analysis, and from other experiments, the author concludes that the cholesterine is not mechanically mixed with the bile, but that, combined with the soda, it forms a saponaceous compound, soluble in the bile. If, however, it be in excess, or the alkali be deficient, it is precipitated from the bile in a crystalline form.—*Bullettino delle Sc. Med. de Bologna. Settemb.* 1836.

ANALYSIS OF LIQUOR AMNII AT TWO DIFFERENT PERIODS OF PREGNANCY.

BY DR. C. VOGT, OF BERN.

	Liquor amnii, at 3½ months;	at 6 months.
Water	979.45	990.29
Alcoholic extract, consisting of an uncertain animal matter and lactate of soda	3.69	0.34
Chloride of sodium	5.95	2.40
Albumen (as residuum)	10.77	6.67
By boiling (9.45.)		
Sulphate and phosphate of lime, and loss	0.14	0.30
	1000.00	1000.00
Specific gravity	1.0182	1.0092

The first fluid was, in all its circumstances, more concentrated than the other. Whether this is a condition connected with the development of the fœtus, must be a subject of future investigation. The female, pregnant three months and a half, died of an inflammatory disease; the other in a state of cachexia. The fluids were drawn from the membranes by a canula, and thus obtained pure. This may explain the difference between the present analysis and that of Frommherze, who obtained the fluid as discharged in natural labour.—*Müller's Archiv.*

NEW ANALYSIS OF THE BLOOD.

BY M. BEUDANT.

The following is an abridgment of the conclusions drawn by M. B. from an examination of healthy blood:

1. That the albumen and gelatin are but the same substance, and that the albumen is only liquid in consequence of its combination with a mixture of thirteen parts of neutral salts, soluble water, and one part of soda, contained in the blood.
2. The central corpuscles of the coloured globules of the blood are formed of solid albumen or fibrin.
3. In its healthy state the blood always contains some of the yellow matter of bile, which is also constantly met with, both in it and in the tissues of jaundiced persons.

4. The composition of the serum is always identical in healthy individuals. The same is the case with the globules; and the different kinds of blood differ only in the relative portions of these constituent parts.

5. The substances of which the serum and globules consist are in a very simple numerical proportion: thus, the serum being 1000, the salts are ten; the neutral fatty matters, together with the yellow and blue colouring matters, 20; the albumen, 80; and the whole of these solid substances, relatively to the water, which is 900, constitutes a total of 100.—*Archives Générales de Médecine. Janvier*, 1838.—*Ibid.*

ON THE PRESENCE OF UREA IN DROPSICAL EFFUSIONS.

BY R. MARCHAND.

In Poggendorff's Annalen, (vol. xxxviii. p. 356.) I communicated the analysis of a dropsical fluid, which was remarkable by containing urea, in the proportion of 0.42 per cent. Since that period I have twice had occasion to analyze dropsical fluids, and each time I have detected urea; in the first instance in the proportion of 0.68 per cent., and in the second in the proportion of 0.50 per cent., I have no doubt that the urea existed in these fluids in considerably larger quantity, but its separation becomes exceedingly difficult, owing to the accompanying albumen. I may remark, that in all the three cases there was retention of urine; and in two, which proved fatal, examination after death showed that peculiar degeneration of the kidney which has been described by Bright. It gives me much pleasure to see these analyses confirmed in a paper by Nysten, which, although read to the Academy of Sciences as early as 1810, did not appear in the Journal de Chimie Médical till June, 1837. In this paper several cases are quoted, and amongst others one in which urea was detected in the perspiration, and another in which both urea and uric acid were found in the fluid ejected from the stomach. In how far do these facts favor the view that urea is prepared in the blood, and is not a product of the kidneys?—*Müller's Archiv. Jahrgang*, 1837. Heft. iv.—*Ibid.*

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OBSTETRICS.

INVERSION OF THE UTERUS RESEMBLING POLYPUS.

BY M. FLEURY, JUN.

A woman, aged forty-six, mother of five children, and who had always had easy deliveries, enjoyed good health up to the occurrence of the disease under which she now labours. Three years since a tumour first made its appearance in the vagina; this was preceded by a discharge of a red colour which had existed eighteen months. When the tumour first made its appearance externally, a leucorrhœal discharge took place so abundant as speedily to exhaust the strength of the patient. A portion of the tumour was excised in the month of August, 1836, (about two years after the first appearance of the disease,) and she experienced great relief; the discharge diminished greatly, but the amendment was of short duration; and at the same time that the tumour regained its former size the discharge re-appeared in the same quantity as before. In the month of February, 1837, she was received into the Hôtel Dieu at Clermont. At that time her constitution seemed exhausted, her face bore traces of great suffering, and her skin had that strongly marked straw colour, which, at first sight, seemed to be the effect of cancerous cachexy. The finger, introduced into the vagina, discovered at once a pyriform tumour with its base inferior. The circumference both of the base and pedicle was easily traced, but when the finger reached the summit of the tumour it was found quite impossible to penetrate the uterus. It seemed as if the pedicle was inserted into the whole circumference of the os tincæ, or that it had formed attachments to it. Its texture was firm and resisting, and it was quite insensible to the touch. The red discharge still continuing, and further delay appearing dangerous to the patient, an operation was determined upon. The patient was placed upon a low table, in the same position as in the operation for the stone. A pair of uvula forceps was then introduced into the vagina, and passed upon the fore-finger of the left hand up to the tumour, which was easily seized and brought to the os externum by gentle and continued pulling. Its colour was a pale red, its surfaces quite smooth, and its form that of the body of the uterus. The thumb and fore finger carried beyond the pedicle of the tumour were separated from each other only by the sides of the vagina applied the one against the other. No doubt remained that this tumour was the inverted uterus, for had it been a polypus, the neck of the uterus would have been found around and above the pedicle. On applying the finger to the upper part of the tumour the pulsations of arteries, apparently of considerable size, were plainly perceived. The exposed surface, then, was the internal face of the uterus, which had become external and was the source of the sanguineous discharge. The patient made no complaint and suffered no pain during the operation; even when the uterus was between the blades of the forceps its structure seemed quite insensible. The diagnosis having been thus clearly established, what treatment was to be pursued? Ought an attempt to be made to replace the inverted viscus? was a ligature to be applied? or ought the uterus to be left to itself? The last alternative was adopted; a little charpie was introduced into the vagina with a view of exercising a slight pressure on the uterus, and thus lessening the size of the tumour. The result of this simple treatment, however, could not be known, as the patient soon left the hospital. The question naturally suggests itself, what was the nature of the tumour which was extracted in the summer of 1836? Was it a polypus attached to the body of the uterus or a portion of the uterus itself? Had it been a portion of the uterus itself that organ must have lost its regularity, and had it been a polypus some traces of cicatrization might be expected: they did not, however, exist. It is most probable that the tumour removed was a polypus, and that the attempts to extract it had caused inversion of the uterus.

[This case furnishes a marked exception to a diagnostic rule generally laid down, that in inversion of the uterus the tumour is painful to the touch, in case of polypus insensible. The sensibility of the uterus is perhaps overrated: a case related by Dr. Sparman in his travels in the Cape of Good Hope would lead us to think that it has a very low degree of sensibility. He says that he met with a native who had prolapsus of the uterus, and finding the tumour troublesome had pulled it away piece-meal. We will not pretend to fix the degree of credit which should attach to narratives of cases of disease contained in books of travels, but as Sparman was a physician we feel justified in quoting his authority.]—*La Presse Médicale.* No. 58. Tom. i. 1837.—*Ibid.*

SURGERY.

LUXATION OF THE SCAPULAR EXTREMITY OF THE CLAVICLE, DOWNWARDS.

BY DR. TOURNEL.

This case is interesting, as being apparently, with one exception, the first of the kind hitherto detailed; and as being one, also, the possibility of which has been questioned.

A solder was thrown from his horse. The horse fell on its rider, and, in recovering itself, placed its foot on the front of his left shoulder, where was an ecchymosis of almost the exact shape of the horse's shoe. The pressure separated the scapula backwards. The clavicle remained attached to the sternum; but, its superior and inferior and coraco-clavicular ligaments having been torn, its external extremity slipped from its articular surface beneath the acromion. The accident was regarded at first as a dislocation of the humerus, but the true nature of it was ascertained by an examination in the following manner: The summit of the shoulder was grasped with one hand, resting on the acromion, whilst, with the other hand, it was ascertained, by various motions, that the axis of the humerus was in its ordinary direction. There was no bony projection in the axilla. The left arm was somewhat longer than the right; the elbow and all the rest of the limb were in contact with the lateral part of the trunk. Voluntary movements, and especially upwards, were impracticable: communicated movements were easy, and unattended with pain. The shoulder had lost its rounded form, and there was a depression outwards, beneath the acromion. The shoulder presented, in addition, two projections; one internal and superior, formed by the acromion; the other external and inferior, formed by the external extremity of the clavicle. There was no numbness or pain of the fingers. The summit of the left shoulder was much nearer the sternum than that of the right; and, when the finger was passed along the spine of the scapula from behind forwards, as far as its acromial extremity, it was not stopped by the clavicle. This had been perfectly recognized; and it disappeared, together with the sub-acromial depression, when, the knee having been placed between the two shoulders, they were both drawn backwards: but, when this traction was discontinued, the projection formed by the external extremity of the clavicle, and the depression, were reproduced. The association of all these symptoms leaves no room to doubt that this accident was a dislocation of the scapular extremity of the clavicle, downwards. The reduction was easily effected by placing the knee against the vertebral column, and drawing the shoulders backwards. A cushion was then placed, and retained by bandages in the axilla. The arm pressing upon the cushion was kept applied to the trunk upwards and backwards, by Desault's bandage for fracture of the clavicle. Spirituous lotions were applied to the shoulder. The fore-arm was placed in a sling, and the whole kept in position by a bandage passing round the body. The impatience of the soldier required the removal of this apparatus. Instead of it was substituted that of M. Flamant, which has the advantage of leaving the injured part uncovered. This consists of a grooved bag,* to the angles of which are sewn two rollers, and of a pad, which is placed, as above, in the axilla. The arm being placed in the bag so that the elbow corresponded to its middle angle, the roller, sewn to its anterior angle, was passed over the middle and dorsal part of the forearm, and continued in front of the chest. The other was continued over the back part of the arm, and crossed the former over a thick compress placed upon the uninjured shoulder. The rollers were continued in these directions for two or three turns, crossing one another over the uninjured shoulder, and beneath the elbow of the opposite side. The remainder of the rollers was then passed round the trunk, in order to fix the arm. At the elbow, the bandage was kept in its situation by four tapes, two of which were sewn to the inner side, and two to the outer side of the sac in which the elbow rested. The whole apparatus was covered by a bandage of the trunk, and the scapulary of this bandage was employed to keep resolutive compresses applied to the injured shoulder. Notwithstanding his impatience, the soldier perfectly recovered, after thirty-two days treatment. The first use which he made of his arm was to severly castigate his horse. He remains in his regiment, and experiences neither pain in the shoulder nor difficulty in the movement of the arm.

In the "Ephémérides Nat. Cur.," is an account of a similar displacement. In both cases the cause was violence from above, and directly upon the scapular extremity of the clavicle.—*Archives Générales de Méd. Décembre*, 1837.—*Ibid.*

ST. BARTHOLOMEW'S HOSPITAL.

I. *Clinical Remarks by Mr. Lawrence on the best Mode of treating Encysted Tumors of the Eyelids, containing Hair.*

A young child was taken to Mr. Lawrence with a tumor in the neighbourhood of the external canthus of the eye. It was about the size of a horse-bean, forming a colourless elevation, with the integuments covering it loosely, so that they could be pinched up into a fold over the swelling, which was more fixed below. It was placed immediately behind, and a little above the junction of the lids;

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* Sac en forme gouttière.

and was said, by the mother, to have been there from the time of birth. On performing the operation, the tumor was found covered by the orbicularis palpebrarum, and closely adherent to the external angular process of the frontal bone. The following practical remarks of Mr. Lawrence are worth noticing.

"Such tumors are not unfrequent in infants and young children, occupying the situation just described. I believe them to be congenital; at least the statement of the mother generally leads to this inference. Sometimes they are stationary: in that case, if the swelling is small, there is no necessity for operation, as it is perfectly indolent. I am acquainted with a gentleman who has had through life a rather larger growth of this kind: it causes an unnatural fulness near the extreme angle of the eye, not amounting to deformity, and has never been attended with the slightest uneasiness. The affection, as in the case just described, is a cyst containing fat, which is sometimes of oily consistence, sometimes firmer. I have always found short hairs mixed with it in various proportions. Is this admixture of hairs, which resemble those of the eyebrow in length, to be regarded as an exemplification of the principle so frequently observed in adventitious structures, viz. that they resemble in nature that of the textures in which they grow, or that of parts in their immediate vicinity? It is placed under the orbicularis, and adheres more or less firmly to the bone. You must bear in mind the two latter circumstances in operating; make a larger incision than the size of the swelling would seem to require; and pay especial attention to the complete removal of the cyst from the bone.

If a portion of the cyst is left, the wound will not close, and such an occurrence is very annoying to the patient, and considered discreditable to the operator. I saw a young lady, in whom such a tumor as those I have described had been removed from the root of the nose, at the interval between the two eyebrows. She was a handsome person, and had submitted to the operation for the removal of what she deemed a blemish, though it must have been very slight, for the tumor was inconsiderable. She was much worse off after the operation than before; for the wound did not heal, at least it sometimes scabbed over, and sometimes discharged. A probe introduced into the opening went down apparently to the bone. Having learnt the nature of the swelling, and that the operator had experienced unexpected difficulty in separating it from the bone, I concluded that a bit of the cyst had been left behind, and proposed an incision to ascertain that point, which was readily consented to. I found, closely adhering to the frontal bone, a small strip of the cyst, conspicuous by its white glistening surface, and having a few short hairs on it: this was easily removed, and a firm cicatrix was soon secured.

I once saw a small growth of similar nature, but with an external aperture large enough to admit an ordinary dressing probe, on the bridge of the nose. It was congenital; and the opening sometimes produced a kind of greasy discharge. A probe passed in about a third of an inch. Various applications had been made to the part ineffectually. I slit it open, and found a smooth shining membrane with small hairs upon it, almost imbedded in the ossa nasi. It was difficult to dissect it out completely; but the removal was accomplished, and the part healed soundly."

II. *Treatment of Strumous Ophthalmia.*

Mr. Lawrence proceeds on the principle of counter-irritation—not a very new one certainly. His mode of using it is thus set forth.

"In these strumous subjects the occurrence of disease in a new part relieves that which was previously suffering. In imitation of this natural process, the tartar-emetic ointment was rubbed on the nape in both patients, so as to produce and maintain a considerable irritation; the sulphate of quinine was administered internally; the bowels were regulated by small doses of rhubarb; animal diet was allowed, when the appetite indicated the necessity for it; and the suffering organs were occasionally fomented with tepid water. Under this treatment both cases have recovered: the children can now open their eyes and bear the light as well as any body, and we find that no unfavourable change has occurred in the affected parts. The patients are at the same time improved in general health. In one of them, the pustular eruption caused by the ointment spread over the body, with considerable but temporary constitutional disturbance."—*Med. Ch. Rev.*

CASE OF XEROPHTHALMIA (*XEROS*, DRY), WITH REMARKS ON THIS RARE DISEASE.

BY M. VELPEAU.

French oculists have hitherto neglected to notice this affection of the eye—which consists in a morbid dryness of its surface—although Semidt, Travers, and Mackenzie have briefly described it.

The following is a well marked example, which occurred in the service of M. Velpeau at La Charité a few months ago.

A young man, of a robust although somewhat scrofulous constitution, had twelve months before his admission into the hospital suffered from inflammation of the right eye. An abscess formed at the time under the upper eyelid, and gave discharge to a quantity of pus from its inner surface. When this discharge ceased, the patient began to experience dull pains at the external part of the eye, also a gradual diminution of the lachrymal secretion and dimness of vision. Various means were used, but without effect; and the surface of the cornea became quite dry, and the sight most indistinct.

When admitted into the hospital, it was observed that his right upper eyelid was somewhat inverted, and could not be elevated so much as the left one. The orifices of the meibomian glands and of the inferior lachrymal punctum were quite obliterated.

The caruncula lachrymalis was observed to be smaller than that of the other side, and imbedded in a triangular fold of the conjunctiva. This membrane presented a dull white colour and was "*entierement seche.*"

At both angles of the eye, it exhibited several vertical folds which seemed to be more dictinct and numerous in consequence of the efforts which the patient had made to separate the eyelids as much as possible.

When the eyeball was drawn into the socket, the lower segment of the cornea seemed to be tied by one of these folds, as by the *membrana nictitans* in birds. The surface of the cornea itself was invested with a pulverulent pellicle, which was dry and unequally opaque. Through it, as through a cloud, the iris and pupil might be perceived. In short, the eye looked like the dry, dull, and withered eye of a corpse, which had been exposed for a day or two to the action of the air; only with this exception, that it was not at all sunk in the socket. The patient had found that his sight was always clearer, if he moistened the surface of the cornea with water. When a solution of nitrate of silver (five grains to an ounce) was dropped into the eye, the patient experienced scarcely any pain or uneasiness.

The left eye was quite sound and had not suffered at all from any sympathetic influence with its fellow.

The treatment of Xerophthalmia or Xerosis has been hitherto utterly unsatisfactory. M. Villards has reported one case successfully treated by touching the conjunctiva around the edge of the cornea with the solid nitrate of silver; and M. Sanson has recommended the excision of the conjunctiva in the same place. M. Velpeau tried, in the present case, the solution of the lunar caustic and also the insufflation of calomel, but without having obtained any decided benefit.

Remarks. The rare disease of Xerophthalmia has been strangely confounded by some authors with some kinds of opacity of the cornea. The two affections are altogether different from each other. In the former, the lamellar tissue of the cornea appears to be sound; and it is only the conjunctival epithelium investing it, which becomes dry, thickened, opaque, and, as it were, "epidermifie." It has a slatey hue, is pulverulent, and is of a bedimmed transparency which impairs, without abolishing, the visual functions. On the other hand, leucoma, albugo, &c. are diseases of the cornea itself; the opacity in them is much more to admit the *direct* rays into the ear, and the head must be turned almost downwards to permit an illumination of the nose. These canals, moreover, are so narrow, that as the eye of the surgeon must be in the same line with the light, his head is therefore a great obstruction to its course; and, indeed, when one is most successful in catching a sight of the tympanum, the eye must be so far from the object, that it becomes indistinct. The hand, also, during an operation, becomes another impediment both to the light and vision. In using a transparent lens to transmit and concentrate the rays, the same difficulty exists. The glare on the whole side of the face, etc., also renders the vision obscure.

The advantages of the present instrument are obvious. There is no dazzling of the eye by reflection from surrounding surfaces:—the head, no matter how vertical the sun, can be held nearly in a natural position, and the hand that holds the speculum rests upon the shoulder, away from the clothing of the neck. The *edges* of the entering end being slightly bent inward, enable the valves to pass far into the canal without scraping the delicate sides; and when dilated, do not press a sharp edge into the soft membrane. The outside of the valves should be highly polished, but the rest of the instrument, except the cavity of the blades, must be blackened. Some have thought this inner surface, being made dark, would render vision more distinct.

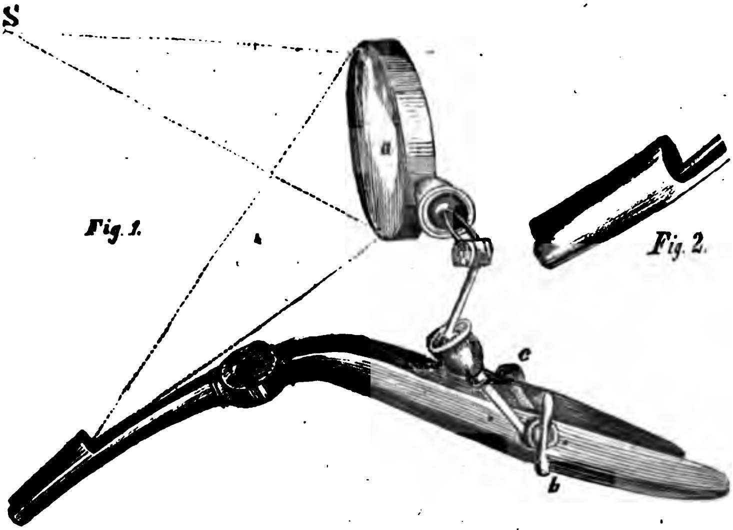

Fig. 1.

Fig. 2.

Fig. 1. The instrument reduced about one third in size. *a*, A concave mirror, one inch and a half in diameter, of about four inch focus, set into a brass frame, placed upon the extremity of an arm, with four joints. The first, *b*, is attached to the left handle, by a thumb screw. The second and fourth are ball and socket, with buckskin around the ball to prevent slipping; and the third is an ordinary hinge. *c*, A round thumb screw on the right handle, moving on a rod running through one handle and attached to the other, to retain the handles where they are placed by pressure of the fingers. The thread of this screw should be very fine, so that in adding a trifle to the dilatation, the change should be very gradual, which makes it much less painful. There should be a spring between the handles, to keep them closed when entering. Every possible motion being possessed by the arm, the mirror can catch the sun, and cast a spectrum in any direction. When this is about one fourth of an inch in diameter, which is the proper size, there is no disagreeable heat produced by the hottest summer's sun.

All the instruments for operation in these cavities can be made with long handles, so that the hand can be behind the mirror.

No. 2. The valves of their full size.

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The Philosophy of Marriage in its Social, Moral, and Physical Relations, &c., &c.[*] By MICHAEL RYAN, M. D. Member of the Royal College of Physicians and Surgeons of London, &c. pp. 364, 12mo.

This work is misnamed. It falls far short of the *philosophy* of the subject which it proposes to treat. Materials we find in abundance—some worthy of being retained, others useless, misshapen, and in part rubbish. The author seems to have chosen his title, as a persevering anecdote monger brings in his *apropos des bottes*, or talking of a gun, in order to string together a variety of details, many of them entirely foreign from the expectations raised by the catchword.

The subject of marriage is worthy the pen of a philosopher, whose mind has been enlightened by physiology and hygiene, and stored with much and various knowledge of human nature. But the philosophy of the subject does not require, nor even allow of the introduction of the many extrinsic matters which we find in Dr. Ryan's book.

Every now and then the author seems to be on the point of approaching the real truth of the subject; and we are in expectation of at last finding its philosophical bearings and applications; but disappointment follows, and we discover merely a brief annunciation of some common place truisms. To the professional reader its details must be often wearisome, either by the triteness or inappositeness. To the general reader they are perplexing by their number, if not incongruity. Physiology and ethics, which might be made to illustrate one another, and which ought to be exhibited in close and harmonious connexion together, are set forth by Dr. Ryan in shreds and patches of party colours and party tissues.

Justice to his theme did not demand more than an allusion to "generation in the vegetable kingdom," whereas the author has given us a chapter on this point. The professional reader might well ask to be spared also the infliction of an account of the "ancient and modern theories of generation." To the general reader such an account conveys as much instruction as a disquisition on castles in the moon. There is some good, though familiar advice, to pregnant females, which may be said to come, properly enough, within the scope of the philosophy of marriage. By a large construction, what the author calls the hygeology of parturition might be included under the same head; but the whole chapter on "parturition—assistance to be afforded by male and female obstetricians—duties of accoucheurs and midwives," may be considered as an attempt to make up a book by superfluous if not extraneous matter. If all the sequences to marriage constitute a part of its philosophy, why not give us an account of the appropriate ceremonies of christening, as there is, in fact, of the "physical management of infants," which ought, according to Dr. Ryan's method, *id est* the want of it, be followed by a history of the symptoms and treatment of the diseases of children.

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[*] The remainder of the title is:—"With an Account of the Diseases of the Genito-Urinary Organs, which impair or destroy the Reproductive Function, and induce a variety of Complaints. With the Physiology of Generation in the Vegetable and Animal Kingdoms. Being part of a course of Lectures delivered," &c.

A chapter of some length is devoted to the "pathology of the generative organs, malformations and diseases of both sexes, which disqualify for marriage, cause impotence and sterility, or which injure or destroy the offspring."—Written in a less gossiping mood, the points treated of in this place would not be without their value: but in this case, the whole would have to be recast in order to give it any thing like homogeneousness and unity. We find in this chapter more aliment to prurient curiosity than aids to philosophy.

The last chapter is on "syphilography—history of the symptoms of the venereal disease,—comments on sexual diseases." We may well question the necessity of including under the head of the philosophy of marriage, a description of the varieties of a disease which is in no ways connected with or grows out of the marriage institution, or sexual intercourse under marriage sanction; but which, on the contrary, is the result of a neglect of the laws and philosophy of marriage. The author, probably, goes on the poetical plan of illustrating by contrasts and contraries,—*lucus a non lucendo.*

In fine, the really philosophical inquirer on "Marriage" may continue his studies and observations, without any fear that he has been anticipated by Dr. Ryan in the work before us. The subject is unquestionably an important and engaging one; and, if examined in the right sense, might be placed in such a light as to benefit not a little both those who, after pleading guilty to the soft impeachment, propose to take on themselves the silken bonds of Hymen, and that other numerous class who are already initiated into its mysteries.

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An Essay on the Relation between the Respiratory and Circulating Functions. By Charles Hooker, M.D. Read at the New Haven County Meeting of the Connecticut Medical Society, April 12th, 1838.* pp. 47. 8vo. Boston.

This essay is creditable to the industry and observation of its author. The subject is confessedly important, and one cannot but be surprised that it has not engaged more attention. From the good old rule, which generally obtains currency, "to begin at the beginning," we shall deviate this time by beginning at the end, and giving the "Concluding Summary" of Dr. Hooker's essay in his own words:—

"The preceding essay, it is believed, establishes several important pathological principles, affording valuable diagnostic and therapeutic indications, which hitherto have been but slightly noticed, or wholly unknown. The indications of the pulse have received much attention; but the variations of the respiration have been little attended to, and the relations between the respiratory and circulating functions have been almost wholly neglected.

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* Republished from the "Boston Medical and Surgical Journal."

"The *comparative frequency* of the respiration and the pulse in health, which from constant observation, during a period of several years, I have ascertained to be 1 to 4½ (p. 3), has not been commonly observed; and most of the indications afforded by *variations of this ratio* (p. 5) have been altogether overlooked.

"A disproportionate *increased* frequency of the respiration has been shown to afford the general indication (p. 11) that there is some impediment to the respiration; which may be owing to A. *Disorder of the lungs or air passages* (p. 5), as pneumonitis, phthisis (p. 7), œdema of the lungs (p. 8), or (p. 9) any affection of the lungs which prevents a portion of them from being freely permeated with air, or any disorder of the bronchia or bronchial membrane which impedes the communication between the air and the blood within the lungs: or, B. Some *mechanical impediment* to the motions of respiration (p. 10): or, C. *Imperfect function of the organic nerves* of the lungs (p. 10).

"A disproportionate *diminished* frequency of the respiration, which indicates *a want of energy in the nerves which control the respiratory motions* (p. 11), has been shown to be common in typhous fever, and in many other diseases.

"The pathological effects of imperfect aëration of the blood, which had been treated of by Bichat and some subsequent writers (p. 12), but which they scarcely noticed except as immediate precursors and causes of death, I have observed to be manifest through the progress of typhous fever (p. 14), and many other diseases. What is commonly termed *congestion in the brain*, I have endeavoured to show (p. 17), is simply a deterioration of the blood caused by this imperfect aëration, a prominent example of which occurs in the disease termed congestive typhus (p. 17). The effects of this imperfect aëration, depending upon disordered function of the different nerves concerned in respiration, have been traced in various diseases (p. 14 to p. 25).

"The common occurrence, and the injurious effects, of this imperfect aëration of the blood suggest the important general *therapeutic indication* (p. 26) *to remedy deficient respiration*. The medicinal agents are detailed (p. 26 to p. 28) which aggravate deficient respiration, by increasing the circulation, or by diminishing the respiratory function.

"The use of remedies, with a view *to promote the arterialization of the blood* (p. 28), it is believed, has never been distinctly treated of by any author, as a prominent object of medication. Though my 1st class of these remedies—those which diminish the action of the heart and arteries (p. 29)—have been commonly known to possess this power over the circulatión, still they have not been commonly employed with the view—a view which I consider as highly important in many cases—to obviate a disparity between the respiratory and circulating functions. The 2d and 3d classes of remedies (p. 34 and p. 36)—those which excite and invigorate the motor respiratory nerves, and the arterializing nerves of the lungs—have rarely, if ever, been recommended for those particular purposes; though I think it will be obvious to my readers, that many of the known valuable effects of these remedies are owing to such operations. The other three classes—4th. Ventilation (p. 42); 5th. Remedies which obviate mechanical impediments to the respiration (p. 43); and 6th. Remedies which excite secretions vicarious of respiration (p. 44)—though their general effects on the respiratory function have been known, have not been commonly employed for the distinct purpose of obviating deficient aëration of the blood.

"In short, the general subject of the pathological relations between the respiratory and circulating functions has received little, very little attention. The writer hopes that he has at least shown the subject to be deserving of investigation."

Objections may properly be taken against some of the divisions of the subject made by Dr. Hooker, as based upon hypothetical or doubtful views. Among the different heads of "Frequent Respiration" he instances that "from imperfect function of the organic nerves of the lungs:" so, also, a little farther on, he speaks of "imperfect aëration of the blood from disordered function of the motor respiratory nerves." Our pathology is not so far advanced as to justify this minuteness of reference to the states of the nerves connected with the respiratory movements.

"*The general therapeutic indication,*" according to Dr. Hooker, "connected with the relation between the respiratory and circulating [circulatory?] functions, is *to promote the arterialization of the blood*, or, in other words, *to remedy deficient respiration.*" The remedies enumerated as promotive of the arterialization of the blood are divided into six classes. Under the head of the first, or those which diminish the action of the heart and arteries, Dr. H. specifies *venesection*, *antimony*, *ipecacuanha*, *the refrigerant salts*, *digitalis*, *sanguinaria canadensis*, *colchicum*, *veratrum*, *nicotiana tabacum*, *lobelia inflata*, and *polygala senega.* How justly all these, or any one in all circumstances, can be said to be entitled to the place thus assigned them, is a question which to discuss would lead us into details for which we have not room at this time. The position assumed by Dr. H., impliedly, if not positively, is that a diminution of the heart's action will relieve the respiration by increasing its frequency, and that the remedies just mentioned will act as sedatives to the heart without affecting in a similar manner the lungs. This proposition is equivalent to saying that the nerves of the heart, through which it is operated on by the remedies, are in an inverse state from those of the lungs, and that the means chosen to abate the excitement of the former, will, at least, not diminish the activity, if they do not actually increase it in the latter.—Is there not more refinement than accuracy in this mode of viewing the subject?

Among the diseases mentioned by Dr. Hooker, in which there is a manifest and morbid inequality between the respiration and the circulation, we see *Delirium Tremens.* In the treatment of this disease, Dr. H. places great reliance on digitalis, which, he tells us, "relieves morbid wakefulness, *subsultus tendinum*, muttering delirium, and coma, and sleep induced by it is commonly more refreshing than when induced by opium and most other narcotics, because the respiration is less oppressed." The author had before pointed out "the remarkable deficiency of respiration which occurs in *delirium tremens*," and he now briefly describes his plan of treatment, in which, be it said briefly, that digitalis and nitrate of silver figure as the most conspicuous and the chief remedies. "I commence," says Dr. H., "the treatment of a case with a full cathartic dose of calomel, which is followed with the exhibition of nitrate of silver, in doses of gr. $\frac{1}{8}$th every hour, or gr. $\frac{1}{4}$th every two hours. If called in the early part of the day, I adopt no direct means for inducing sleep until night—the natural time for sleep." In what follows, the reader of this notice of ours will be startled, and but for the expression of our own surprise at the enormity of the doses, he could tax us, or our printers, with a sad and gross mistake in transcribing or copying this part of Dr. Hooker's essay. It runs thus:—"In the evening I direct one ounce of tincture of digitalis, of which a third part is to be given every two hours until sleep is induced. If this fails, the nitrate of silver is resumed, and continued through the following day; and, on the following night, an ounce and a half of the digitalis is directed, one third to be given every two hours." HALF AN OUNCE OF THE TINCTURE OF DIGITALIS AT A DOSE, *and said dose to be repeated every two hours.* This is more than heroic treatment. After what pharmacopœia or dispensatory is the tincture of digitalis prepared in New England. Did the author mean to recommend the infusion?

If we except the mistake just pointed out, the contents of Dr. Hooker's essay will prove a useful addition to our materials for physiological and pathological study, and it may be an improvement in therapeutics.

Transylvania Catalogue of Medical Graduates with an Appendix, containing a concise History of the School from its Rise to its Present Time. Pp. 35.

In the first session of this school which began in November 1819–20, there were 37 pupils, of whom, in 1820, at the first commencement, 7 graduated. In 1837–8 there were 227 pupils, and in the spring of 1838, 64 graduates. The largest class was during the session of 1825–6, being 281. The whole number of graduates, from 1820 to 1838, being nineteen collegiate years, is 1057, and of students during that period 3800.

"The qualifications for becoming candidates for the degree of Doctor of Medicine, are as follows:—

"The persons offering must be 21 years of age, and must have been engaged in the study of medicine during three years. Two full courses of lectures in a chartered medical school (the last of which in this institution) are also requisite. But persons who exhibit satisfactory proof of having been engaged in respectable practice for the space of four years may be candidates, by attending one course of lectures, which must be in this school. Each candidate is required to exhibit all his tickets to the Dean, before his name can be enrolled. The fee for graduation is $20.

Annual Announcement of Jefferson Medical College. For the Sessions of 1838–9. Catalogue of Students and Graduates of 1837–8, Pp. 15.

The modification of the charter of this college has been already mentioned, by which its connexion with the Institution at Cannonsburg is severed, and the number of its trustees is increased from ten to fifteen. The latter body consists of the following gentlemen:—The Rev. Ashbel Green, D. D. LL. D., *President.* Samuel Badger, Esq.; James M. Broom, Esq.; Rev. C. C. Cuyler, D. D.; General Wm. Duncan; Jacob Frick, Esq.; David S. Hassinger, Esq.; Hon. Judge King; Hon. Joel B. Sutherland; Rev. Ezra Stiles Ely, D. D.; Hon. Jno. R. Jones; Hon. Jesse R. Burden; Colonel Samuel Miller; Jno. R. Vogdes, Esq.; J. B. Smith, Esq.—Hon Judge King, *Secretary of the Board.*

The number of students on the catalogue for the last session 1837–8, is 248; and of graduates at the commencement in the spring is 103.

Proceedings of the President and Fellows of the Connecticut Medical Society, in Convention, May 1838. *With a List of the Members of the Society.* Pp. 12.

"Dr. Hooker having declined a re-election as Secretary, the following officers were elected for the year ensuing:—Silas Fuller, M.D., *President;* Elijah Middlebrook, M.D., *Vice President;* Luther Ticknor, M.D., *Treasurer;* Archibald Welch, M.D., *Secretary.*"

There are three standing committees, viz., Committee of Examination; Committee to nominate a Physician to the Medical Institution; Committee to nominate a Physician of the Retreat for the Insane.

A list of persons recommended by the several county societies to attend a gratuitous course of lectures at the Medical Institution of Yale College, is published in these proceedings. We are at a loss to see any good reason for such publicity. Delicacy to the feelings of the parties benefited should forbid it.

There must be great competition for the office of Treasurer, as we find that this officer was allowed no less a sum than—"ten dollars for his services."

The number of Ordinary Members of the Society is 333 "taxable" and 29 "not taxable." The honorary members are 32 in number, of whom eight are deceased.

AN AMERICAN PHRENOLOGICAL JOURNAL AND MISCELLANY, is about to be published in this city, as we learn from a Prospectus recently issued by Adam Waldie, 46 Carpenter Street, Philadelphia. Mr. Waldie will be the publisher of the Journal. The name of the editor is not announced, nor is it known to us, hence we are unable to speak of the auspices under which the work will be conducted, or of the probabilities of its success on this score. The subject is one of vast importance; the materials are very ample and allow of being exhibited under various aspects, and with multiplied applications. Intellectual and ethical philosophy, education, criticism, national and individual character, and jurisprudence, and political economy may be specified, among the subjects on which phrenology is calculated to throw great light, if it do not prove a sure guide. To say that it has already done more in these respects than the commonly received metaphysical systems of the schools, would be small praise, except by comparison.

Touching the security for the continuance of the Phrenological Journal for at least one year, we read in the prospectus—"As funds are already deposited for sustaining the work *one year*, subscribers will incur no risk of loss by paying in advance; and for the same reason, subscriptions will be *invariably* required IN ADVANCE."

Each number to appear monthly, and to consist of 32 octavo pages, making a volume of not less than 384 pages; corresponding in point of mechanical execution with the best periodicals of the day. The Journal will be furnished to subscribers at $2, per annum. To CLERGYMEN AND THEOLOGICAL STUDENTS, single copies will be furnished at $1,50 per annum. First number in October.

On the cover of the "Journal and Library" will be found an advertisement of a proposed work on Phrenology, by Alexander A. Young. The author is painstaking and conscientious, and will do his best to show that phrenology is not only sound philosophy, but that it is the best philosophy with which we are yet acquainted, and that it is not only in accordance with, but strikingly sustains the lessons of Scripture, and revelation. We have seen sundry testimonials by gentlemen—professors and others in different colleges—expressive of the pleasure and instruction which they derived from hearing Mr. Young lecture.

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OBSERVATIONS ON THE USE OF THE BALSAM OF COPAIBA IN DISEASES OF THE MUCOUS MEMBRANE OF THE INTESTINAL CANAL.

BY R. LA ROCHE, M.D., OF PHILADELPHIA.

(Concluded.)

DIARRHŒA.

The next subject to which I shall call the attention of the reader, is the effects of the copaiba in the treatment of diarrhœa.

When and by whom the practice of resorting to this remedy originated I shall not attempt here to determine. It will be sufficient for my present purpose to show, by a brief reference to a few writers within my reach, that for more than a century it has been countenanced by practitioners of deserved reputation, and by some of them warmly recommended.

In his work on copaiba, which was published as early as the year 1710, Hoppe speaks of its use in diarrhœa, in a way to indicate that the practice was common at the time he wrote. Nor was it neglected at a later period. It has been already stated, that Dr. Pemberton recommends it in those cases of dysentery in which the disease, having continued for some time, has assumed the form of chronic diarrhœa and is attended with exudation of mucus and blood, occasional griping pain and tenesmus, The same writer also used it, both by the mouth and in the form of injection, in cases in which he was led, by the offensive smell and curdled appearance of the discharges, to suspect that there existed ulcerations in the large intestines. Hallé in his notes on Tissot, and also Nysten, speak in favourable terms of the copaiba in atonic diarrhœa. Richard regards it as an advantageous agent in the chronic form of the disease when the mucous membrane is the seat of slight inflammation; and Barbier of Amiens also speaks favourably of its effects in some varieties of the same disease. Dr. Good recommends it, in a particular manner, in that form of diarrhœa in which the discharges consist more or less of membrane-like tubes, whitish, viscous and inodorous. He remarks, that the copaiba has proved still more serviceable in such cases than the milder preparations of mercury, which he thinks are very useful. "When in this disease I have not been able to induce the patient to take it by the mouth, I have recommended it in the form of injections. In one case, in which I prescribed it in this form, three drachms intermixed with three ounces of mucilage of linseed being thrown up three times a day, it proved eminently useful." Dr. Copeland also advocates its use in the chronic form of simple mucous diarrhœa, and in cases complicated with, or depending on, ulceration of the intestines.

Among the physicians of our own country we find, so far as my memory extends, but a few by whom the copaiba is spoken of as an useful agent in the disease in question. Indeed, I believe, that of the writers of note, Dr. Eberle, again, forms an exception on the subject. In his work already quoted (ii. 305), he remarks that in obstinate cases the internal use of that remedy will sometimes do much good. Differing, however, from some of the writers already mentioned, he does not think it probable that it can procure any permanent relief in cases attended with ulceration of the intestinal mucous tissue. Yet, in cases of this kind, he has known considerable temporary benefit derived from this article. In a case of chronic diarrhœa, of upwards of six months' continuance, and depending, as Dr. E. thinks, on simple chronic inflammation without ulceration of the mucous tissue, he succeeded in effecting a perfect cure by means of copaiba, given to the extent of from thirty to forty drops three times daily, and fifteen drops of laudanum with each dose.

Such being the views entertained by high professional authorities abroad, relative to the remedial agency of copaiba in diarrhœa, and such the neglect it has met with at home, I shall offer no apology for devoting a few pages to the consideration of the subject, by laying before the reader the details of several cases, and a few remarks suggested by the phenomena presented.

Case 1.—A case answering to the description given by Dr. Good of the tubulated form of diarrhœa, and bearing some resemblance to those, of which an account was published by Dr. Powell in the sixth volume of the Transactions of the London College of Physicians, came under my immediate notice a few years ago. The patient, a female, aged about forty years, had been subject, occasionally, for sometime back to a slight derangement of the bowels. The attack in question had come on suddenly, and had rapidly assumed a serious character. When I first saw the patient she had not left the house for several weeks; during which time she had taken a great variety of family medicines. She complained of pain along the arch of the colon, and about the umbilicus. The pain was occasionally very severe and griping, but was not excited or increased by pressure. The stomach was irritable; there was some fever, and the tongue was pasty. The alvine evacuations were not very frequent, but consisted, in great measure, of thin unhealthy feculent matter, mixed up with a large portion of a substance which was at first supposed by the friends, and attendants to be worms, and subsequently by some persons the internal lining of the intestines; but which evidently consisted of flakes of coagulable lymph. Leeches were applied around the anus and over the epigastric region—the diet was restricted to small quantities of farinaceous articles; and tepid baths, opiates, alterative doses of blue mass, with rhubarb and ipecacuanha, were successively prescribed. But, although by these means, the pain and irritation were allayed, yet little impression was made on the diarrhœtic symptoms—the discharges continuing as frequent as before, and containing the same albuminous flakes. It was in consequence thought advisable, with a view if possible of expediting the cure, to resort to additional means; and selection was made, at my suggestion, of the copaiba. It was administered both by the mouth and in the form of injections, as recommended by Dr. Good. Under the use of this medicine the disease gradually gave way, and in a few weeks the patient was restored to health.

I am disposed to attribute the largest share, if not the whole, of the benefit obtained in this case to the copaiba, because during the time it was used no other article likely to exercise an agency in the cure was resorted to, and before it was prescribed the amendment obtained was not such as to justify a belief that the disease, if left to itself, would terminate favourably in so short a time.

While on this subject it may be proper to remark, that Dr. Powell is of opinion, there was no evidence, in the cases of which he has given an account, of an inflammatory process going on, as the pain was rather of a spasmodic nature, and the skin and pulse were natural. With due deference, however, to the pathological knowledge of Dr. Powell, others may be allowed to suspect that in the present instance he has not adopted a correct view of the subject. To this opinion we are led by the circumstance, that when exudations of coagulable lymph occur in other portions of the mucous tissue, they are found to be the product of inflammation. They occur in dysentery, in croup, &c., which are undoubtedly inflammatory diseases; and experience has fully shown that inflammation, even of vital organs, is not necessarily accompanied with fever and hot skin. But, however it may be in regard to the cases which fell under the notice of Dr. Powell, there can scarcely be any doubt that in the instance just described the complaint depended on inflammation. The state of the skin, the febrile excitement, the abdominal pain, the furred and pasty tongue, and the effect of the treatment—to say nothing of the character of the matter discharged—indicate that such was the nature of the disease. Nor can this view be invalidated by our knowledge of the stimulating property of the copaiba: the facts already detailed in this communication, as well as others to which I shall advert presently—to say nothing of its use in gonorrhœa and other diseases—demonstrate that the same remedy is used with unequivocal success in cases depending on inflammation. Dr. Powell relies principally on purgatives—senna tea, combined with infusion of gentian and liquor of potassæ. From such remedies, however, it is not probable we can obtain any other effect than the evacuation of the coagulable matter;—supposing, indeed, that purgatives will not be sometimes apt to aggravate the disease. By those who entertain views different from those of Dr. P. relative to the pathology of the disease, and who are sensible of the mode of operation of purgatives, it will be readily admitted that it would be more rational to resort to such means as are calculated to remove the cause of the exudation, by changing the action of the secerning vessels, than to trust to those that act principally as evacuants of the bowels.

Case 2.—*Mucous Diarrhœa.*—A gentleman applied to me a few years ago for advice. He had recently returned from India, and had laboured, during nearly the whole passage, under bowel derangement. At first the disease was attended with pain, and, as far as I could ascertain, with considerable fever. But whatever might have been the case at first, these symptoms had in great measure subsided at the time the patient came under my observation; for the skin, though dry and harsh to the feel, was rarely preternaturally hot, the pulse was but moderately excited, and the pain was seldom if ever troublesome. The stools were very frequent, and consisted of a mucous-like substance, with very little bile, and a small portion of feculent matter, and occasionally contained a fluid having the appearance of pus tinged with blood. The patient was emaciated, and laboured under depressed spirits—the abdomen was tense and hot, the stomach was not much implicated, and the urine was passed in small quantity, and of a red colour, The disease had come on after exposure to wet and cold, and was probably aggravated and kept up by improper treatment and diet.

Believing from a review of the symptoms enumerated that the disease depended on chronic inflammation of the lining membrane of the intestines, and fearing the existence of ulceration, I had recourse to antiphlogistic means, leeches around the anus, and cups over the abdomen; followed by ipecacuanha and opium, alterative doses of blue mass, tepid baths, diluent drinks, and emollient injections. Under this plan, the evacuations gradually lessened in frequency, and the skin lost, in a great measure, its harshness and dryness. But though some amendment was thus obtained, the disease was not arrested; the evacuations continuing to present the same unhealthy appearance both as regards the colour and the consistence of the matter voided. Under these circumstances, and expecting little further benefit from the remedies already used, it was thought advisable to make trial of others of a different character. With this view the balsam of copaiba was prescribed in doses of twenty-five drops three times a day, with from five to ten of laudanum in each dose according to circumstances, in a wine glassful of cold camomile tea. Finding that the remedy did not disagree with the stomach, and that the effects on the bowels appeared from the first beneficial, it was persevered in—the dose being gradually increased, and light nourishment at the same time enjoined. At the end of about a month the patient was restored to health.

Whether in this case the diseased membrane was the seat of ulceration is a point upon which I am not prepared to express a decided opinion; although the appearance of the dejections, as also the long duration of the disease, may probably be thought to justify an opinion that such was the case. This leads me to remark, that I am not disposed to join Dr. Eberle in the opinion that the copaiba though *capable of relieving*, cannot *cure* diarrhœa attendant upon ulceration of the bowels. It is well known that these ulcerations are curable, and cases in which they are thought to occur are cured, by the same means which succeed in those in which they do *not* exist; hence it is very difficult, if not impossible, to decide positively during the continuance of the disease, whether or not they are present. When we bear these circumstances in view, and remember besides, that it is admitted the copaiba may afford *relief* in such cases, it is difficult to discover what are the grounds for believing that in none of the cases that had got well under the use of that remedy the membrane was the seat of ulceration. Nor is this all. Dr. Eberle admits that the copaiba is excellent in chronic enteritis, and in describing the *post mortem* appearances in that disease, he states that ulceration is the ordinary condition of the mucous tissue of the intestines. By this he seems to involve himself in contradiction, for it is not probable that ulcers exist *only* in cases that terminate fatally. As they are not necessarily fatal they may be presumed to have existed also in individuals who recovered; and if the copaiba has contributed to their cure, there can be no reason to deny that it is adequate to the same task in chronic diarrhœa, which dissection shows is generally accompanied by ulceration, and between which and chronic enteritis there appears to be a distinction without a difference.

But be this as it may, it is not my wish to ascribe to the copaiba the whole credit of the cure in the case last described. The remedies previously employed, aided by proper regimen, had evidently produced much good; they might perhaps have sufficed, in time, to effect the desired object, and had in all probability placed the patient in a situation to get well more readily than he would otherwise have done. But from what we know of the effects of the copaiba in mucous inflammations generally, and particularly in the disease before us—from the known protracted nature of such cases when treated by other means or when left to the powers of nature, we may reasonably presume that it was instrumental in shortening the duration of the disease or even effecting the cure.

CASE 3.—A young female, about twenty two years of age, applied to me for advice, in November 1834, for the cure of diarrhœa. The disease was of four months' standing. The patient was somewhat emaciated—her complexion was sallow, skin dry and husky, pulse weak and frequent. Her appetite was capricious, and thirst troublesome. The abdomen was a little tender to the touch, and the evacuations were very frequent, particularly towards morning and evening, and were attended with severe griping pain, and often with tenesmus. The matter discharged consisted of a small quantity of thin, unhealthy feculent matter, mixed with pieces of undigested food, and a large portion of mucus; the whole generally tinged with blood.

The patient had been on different occasions under regular medical treatment, and had besides made use of a number of family and popular medicines; but without more than temporary relief.

Cups were ordered to be applied along the arch of the colon, and over the right iliac region, and blue pill, followed by rhubarb and magnesia, prescribed. To these succeeded small doses of ipecacuanha and opium, lime water and milk; while boiled milk and water crackers were allowed for nourishment. From the local depletion some advantage was obtained; the tenderness and tenseness of the abdomen being a little mitigated. But so far from any benefit being produced by the other remedies, the disease in a few days appeared rather aggravated than otherwise—the stools being more frequent, and attended with more griping, and considerable nausea. The ipecacuanha was discontinued; and, as soon as the gastric distress had subsided, recourse was had to the copaiba, which was administered three times a day in doses of fifteen drops, with five of laudanum, in a glassful of camomile tea; the patient being at the same time allowed at her own repeated solicitation, water crackers, and boiled flour mixed with milk and water for nourishment, and cold toast and water for drink. The evacuations being still attended with pain, and the abdomen tender and tense, the local depletion was directed to be repeated; but this being objected to by the patient, a flannel roller and emollient injections were substituted.

From this plan a sensible amendment was obtained before the end of a week. The stools were reduced from ten or twelve, to four or five in the twenty-four hours, and the griping, though still troublesome was lessened in degree. The copaiba was increased to twenty-five drops three times a day; and at the end of another week the patient reported that the evacuations were reduced to two or three in the twenty-four hours, and were attended with less pain; that the matter discharged was of a firmer consistence and healthier appearance; and that her appetite was good and her thirst less troublesome. The remedies were directed to be continued; but in diminished doses.

The disease continued with but little further abatement until about the 1st of December, when the intestinal derangement appeared to yield; the appetite became better, the stools were reduced to two, at most, in the twenty-four hours; the matter evacuated assumed a nearly natural appearance. The copaiba and laudanum were still farther reduced in quantity, and more nourishing food prescribed. On the seventh of the month, in consequence of exposure to cold and humidity, the disease was of a sudden considerably aggravated, and was attended with pain and fever; but after a few days it gave way to proper remedies. The copaiba was resumed; animal jelly was allowed; and this was followed, on the twenty-second, by solid food. The medicine was in a day or two discontinued, and on the 2d January, the patient reported that she was now perfectly well.

The agent in the cure of this case is, I think, easily recognized. The quantity of laudanum added to each dose was very small, too much so to exert a decisive effect on the disease, and only sufficient to place the stomach in a condition to support the other medicine. Besides, previous to the time the copaiba was prescribed, opium was administered, in substance and in various of its preparations, by those who preceded me in the management of the case; and the patient had, of her own accord, taken, for several days, repeated doses of laudanum, and never with more than temporary relief. It is not probable, that if of no service as a curative means,—if only beneficial as a palliative, when thus prescribed freely, it can have had the principal agency in the removal of the disease when administered in minute doses conjointly with another medicine. As regards the articles of nourishment that were allowed, it may fairly be doubted whether they could be sufficient to effect a cure in a case of this kind. In mild attacks of diarrhœa unattended with signs of severe irritation, there is little doubt that a proper regimen will often be sufficient to enable us to attain the object in view. But when the disease assumes a severe character—when it proves obstinate, it is in general found that other and more active means are required. Considering, indeed, the presence of griping, of tenderness of the abdomen, and other symptoms of the kind, it is probable that more physicians will be disposed to censure the use of such articles as were allowed in the case before us, than to approve of them; and that, therefore, few will refuse to coincide with me in denying to them the principal agency in the cure.

From this it follows that, if the favourable termination of the case cannot be ascribed to the opiates, or to the articles of nourishment employed, we must necessarily refer it to the remedial agency of the copaiba; particularly as its beneficial effects in other instances of a similar or kindred kind have been well ascertained. While the local depletion produced relief but of one symptom only; the purgatives and other remedies employed, if they did not aggravate, at any rate did not arrest the disease; and the flannel roller and emollient injections, though excellent adjuvants or palliatives, are not by themselves adequate to the task of eradicating the cause upon which such diseases depend.

In conclusion, it may be proper to remark, that other remedies, often employed successfully in the treatment of severe and protracted diarrhœa, were not resorted to, partly because the patient objected to them, but principally because it was desired to make a fair trial of the copaiba, the efficacy of which was already well known. Whether this plan was judicious or justifiable; and whether a cure might have been more speedily obtained by other means, can only be decided by those who have made trial of the remedy in question, and compared the results with those obtained from other modes of treatment.

Case 4.—In a case of feculent diarrhœa which came under my notice in the Autumn of 1833, the balsam of copaiba, though it did not effect a cure, was sufficiently serviceable to justify an account of its effects. The patient, Mr. J. B., about sixty five years of age, had been for a long while subject to attacks of hemorrhages from the bowels. These came on at irregular periods, and generally continued with longer or shorter remissions during a day or two. They were considered in the light of a salutary effort of nature to unload the vessels of a superabundant quantity of blood; particularly those of the brain, which had a tendency to fulness, and they were unconnected with intestinal disease. In August 1833, this gentleman was attacked with hemiplegia, and palsy of the tongue; both of which, however, together with the cerebral inflammation which supervened, were removed by active antiphlogistic and revulsive means, and mercurial ptyalism. A short time after this Mr. B. was seized with febrile symptoms attended with considerable determination of blood to the head, which gave way in a few days to depletion and mild purgatives. From this period, however, he remained subject to frequent attacks of bowel complaint, preceded by confusion in the head, and occasionally severe vertigo. The diarrhœa generally continued three or four or even more days, and had the effect of relieving the cerebral derangement. In this respect it may have been salutary; but as the discharges, which consisted of thin feculent matter, mixed occasionally with a large portion of blood, were at times frequent and copious, they finally produced considerable emaciation and debility. In consequence of this it became necessary to restrain these attacks within safe limits, without, however, putting a stop to their return, and thereby losing the advantage of the derivative action they occasioned. For this purpose the balsam of copaiba was prescribed, after an ineffectual trial of other means, and was used alone during the intervals of the attacks, and in combination with laudanum when the discharges were carried too far. From this plan, aided by restricted and appropriate diet, the desired effect was obtained. The bowels were kept in a soluble state; and though Mr. B. continued subject to attacks of diarrhœa, these gradually lost much of their former severity, and came on at longer intervals; while, the cerebral derangement was lessened in force, and the patient improved in flesh and strength.*

As the relief in this case (in which, for the reasons assigned a complete cure was not attempted) followed immediately after the copaiba was resorted to, and as other means had failed, it cannot be improper to ascribe it to that remedy.

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* Mr. B. adhered with good effect to this plan for some months. Gradually, however, he relaxed in his attention to his health. He indulged in the luxuries of the table; ate copiously, and finally abandoned the use of the copaiba. He refused to resort to the active means required to relieve his attacks of cerebral irritation; which increased in frequency and violence, and produced considerable emaciation. His bowel complaint became very troublesome, and he died in March 1835.

But whatever may be the opinion of others on this subject, there cannot be any doubt as to the efficacy of the copaiba in the following case.

Case 5.—Miss Isabel D——, aged thirteen years, was attacked, while travelling during the summer of 1832, with looseness of the bowels. The discharges were at times frequent and copious, and attended with some griping pain. But, as the friends of Miss D. were of opinion that the disease arose from, and was kept up by change of water and inattention to regimen, and that it would give way as soon as the subsidence of the cholera, (which then prevailed in this city,) would allow them to return home, nothing of importance was done to check it. In this expectation, however, they were disappointed; for although the patient was placed under medical treatment soon after her arrival, the disease continued with short intervals of respite until the commencement of the following year. Various remedial means—local depletion, revulsives, opiates, alteratives, astringents, chalybeates, tonics, aided by proper regimen, were successively resorted to; but to little purpose. The disease was, it is true, occasionally mitigated for two or three days, or even for a week or more at a time; but it invariably returned with renewed violence—sometimes from imprudence in diet, at others without any assignable cause. The longest interval of relief was of five weeks continuance; and was apparently obtained through the agency of colombo powder. But as, during the whole of that period the patient was strictly kept on small quantities of cold roasted fowl and stale bread—a regimen which experience had shown to agree with her better than any other; and as her other symptoms were little amended, and as she relapsed whenever a change of diet was allowed, or the medicine was omitted, it may be doubted whether any substantial amendment was obtained of the morbid state of the intestinal tissue, upon which the diarrhœa depended. But, however this may be, after the recurrence of the disease, the remedy above mentioned no longer produced any beneficial effect.

The number of stools was seldom less than six or seven daily; and they consisted generally of dark, thin, offensive, and frothy feculent matter, mixed often with portions of undigested food. In the progress of the disease, the skin became dry and harsh to the feel, and of a waxy appearance; emaciation and debility gradually supervened, attended with thirst, and a feeble and accelerated pulse. The appetite continued notwithstanding nearly as before the attack, and although the patient was usually disturbed once, and sometimes twice in the night, unless she took opiates the evening before, her sleep was quiet and refreshing.

Such was the condition of Miss D. when my attention was more particularly called to her case. Finding that none of the remedies heretofore employed had produced permanent relief, and recollecting the salutary effects obtained from the balsam of copaiba in similar complaints, it was prescribed in doses of twenty drops, with three of laudanum, three times a day. The benefit derived from it exceeding my warmest expectation;—the discharges soon diminishing in frequency and improved in appearance. The medicine was increased in quantity, and the laudanum gradually omitted. The patient, who had been kept on the diet already mentioned, was allowed to resume gradually her ordinary food, and experienced no ill effects from the change. She gained strength and flesh; her skin resumed its natural appearance, and in the course of some weeks she was enabled to discontinue the use of the medicine.

When we bear in mind the long standing and obstinacy of the disease in the foregoing case;—the failure of all the remedies employed; the relief obtained soon after recourse was had to the copaiba, and the permanency of that relief;—when, besides, we compare this result with that obtained from the same remedy in the cases already described in the present communication, and in affections of other portions of the mucous membrane, it appears evident that the credit of the case is ascribable to that agent and to no other. The conclusion is the more natural, as no other remedy likely to produce the effect was employed in conjunction with the copaiba, except laudanum. But as this had failed before being used with the former, though administered in large doses; and as it was laid aside before a cure was obtained, it is impossible to lay much stress on its operation. As regards the regimen, it will be sufficient to remark, that it was similar to that which had been allowed from the time Miss D. was first placed under treatment; and that as it did not succeed in curing the disease before recourse was had to the copaiba, it is not probable it was more effectual at a subsequent period of the attack.

Case 6.—*Chronic Enteritis.* In speaking in another place* of the efficacy of the balsam of copaiba in disease of the urinary organs, I stated that that remedy could be employed usefully, not only in cases characterised by an increased mucous, or by suppurative secretion; but also in certain varieties of irritation of the lining membrane of the bladder, unattended by either of these changes. The following case will serve to show, that in complaints of the alimentary canal dependent upon chronic inflammation, but unconnected with symptoms of dysentery, or of diarrhœa properly speaking, the copaiba will be found, at least sometimes, highly useful.

Miss M., aged about twenty-five years, of a bilious and nervous temperament, had been subject for a long period to attacks of gastro-intestinal irritation. Late in the autumn of 1825, she exposed herself during her catamenial period, to a current of air, immediately after coming out of a warm bath. The consequences of this imprudent act were soon manifest: she was attacked with chill, followed by hot fever and acute pain in the left iliac region; and the menstrual discharge was suppressed. The pain was aggravated by pressure and the least change of position, and was accompanied by a sensation of weight in the uterine region, frequent desire to urinate, constipation of the bowels, thirst, &c.

Presuming, from this assemblage of phenomena, that the patient laboured under peritoneal inflammation; and that the left ovary and the neck of the bladder were probably implicated in the morbid state, recourse was had to active depletion, general and local, emollient applications, diluent drinks, enemata, mild purgatives, and finally to a blister over the parts affected. By these means Miss M. was so effectually relieved, that in the course of a few days she was allowed light nourishment; and soon after was enabled to leave her bed. She did not remain long, however, in this favourable situation; for in a few days she experienced, in consequence of inattention to diet, a return of the disease. This attack was more alarming than the preceding one, inasmuch as, independently of the morbid state already described, she now suffered from an inflammation of the lining membrane of the digestive tube and of the vagina;

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* American Journal of the Medical Sciences.

and, owing to her present debility, it was found impracticable to carry energetic measures to the extent usually required in complaints of this kind.

By means of local depletion, however, proportioned to the strength of the patient and the state of the pulse, as well as of emollient applications, and external revulsives, the most urgent symptoms soon gave way. But the irritation of the intestinal mucous membrane assumed a chronic character, and continued after that of the serous tissue had entirely subsided. The patient now complained of pain between the umbilical and epigastric regions, particularly a few hours after taking food. The tongue was red at the edges, and there was thirst; the appetite though not lost was feeble and irregular. The stomachic digestion was not much impaired; but the intestines performed their functions in a very imperfect manner, being usually costive, at times preternaturally relaxed, and the passage of food through them being attended with pain and considerable flatulence. The skin was pallid, and of a slightly yellow tinge, and became warm and dry towards evening. At other times its temperature was a little above the natural standard, with the exception of the feet and hands which were cold. The pulse was accelerated and small, and there was slight œdema of the face and ankles. The muscular strength was much reduced, and the menses continued suppressed.

To combat this morbid state of the intestines, moderate antiphlogistics, emollients, alteratives, and a mild regimen were employed, and persevered in for some time; but they failed in making a strong impression on the disease. At this period a medical friend of the family was consulted, who came to the conclusion that the combination of phenomena presented was ascribable to the suppression of the menses; and that this suppression was probably occasioned by a *rheumatic* affection of the uterus. In conformity with this opinion, and regardless of the condition of the lining membrane of the alimentary tube, which he regarded as of secondary moment, and likely to subside as soon as the uterine disease had been eradicated, the vol. tinct. guaiacum was recommended, in teaspoonful doses three times daily. This remedy was selected on account of its emenagogue and anti-rheumatic virtues, as well as from its having, as was stated, succeeded in the hands of the adviser in several cases of the same kind. Opposition was made both to these pathological views and to the use of the guaiacum; from a fear, that it would aggravate the intestinal irritation, which whether primary or secondary demanded serious attention. However, seeing that the remedies heretofore employed had failed, consent was reluctantly given to the adoption of a mode of practice, which, irrational as it might appear to him and to some of his friends, was enforced with a promise of success by one in whose experience and skill great confidence was reposed. But the hopes thus raised were not destined to be realized, and the guaiacum, so far from displaying advantageously its anti-rheumatic and emenagogue virtues, produced an aggravation of all the prior symptoms, and, in addition, brought on an inflammatory irritation of the rectum, attended with pain and dysenteric discharges.

The medicine was in consequence discontinued, and was replaced by antiphlogistics and emollients, by means of which the patient in a few days, gained the state in which she had been before the recent aggravation of her malady. But though the effects of the guaiacum were thus obviated, no advantage was gained over the original disease, which continued its course with little or no change for some time, when Miss M. was placed under the use of the balsam of copaiba. This remedy was recommended on the ground, that it had been found useful in irritation of the bladder, unattended by a secretion of mucus or puriform matter; that in the case under treatment the inflammation was in all probability situated in the lower portion of the small intestines, and not in the stomach or jejunum.—In its passage down, the remedy would probably be absorbed before reaching the diseased spot—in which ease the latter would be placed in the same relation as regards the copaiba, as other and more distant portions of the mucous membranes in the diseases of which it is found useful. Experience had proved it to be often of great service in dysentery and diarrhœa; and if so, there was reason to think that—even supposing it not to be absorbed before reaching the diseased surface—it might be equally efficacious in the present complaint; in as much as it was highly probable it did not act in the former cases in virtue of its astringent properties, but by altering the morbid action upon which the discharges depended.

The copaiba was directed to be taken in cold water, in doses of twenty-five drops twice a day, and to our great satisfaction was found, in the course of eight or ten days, to have produced a marked amendment in the disease. Encouraged by these results, and finding that though the medicine was swallowed with repugnance it did not disagree with the stomach, it was ordered to be repeated three times a day, with the addition of a few drops of laudanum, to guard against its acting upon the bowels. This course was pursued during three weeks; at the termination of which period, the disease having nearly subsided, and the digestive functions being almost restored to their normal condition, the patient was allowed to discontinue the copaiba, and to partake of better fare. A short time after this she was sent to the country, whence she returned much improved in appearance and strength; her catamenia reappeared, and she was at length restored to the enjoyment of health.

At the date of the occurrence of the above case, I was not aware that the copaiba had been employed successfully in the peculiar form of chronic enteritis, under which Miss M. laboured. Since then, however, and indeed since drawing up the preceding account, I have found that the practice, like every other thing under the sun, is not new. In his Practice of Medicine, Dr. Eberle enumerates the remedy among those most useful in such affections. But of Dr. E.'s experience with the copaiba in the management of chronic enteritis I could know nothing in 1825; as he is silent on the subject in his Materia Medica, published a year or two before, and his other work, above alluded to, only made its appearance in 1830, or 1831. At what period Dr. E. discovered the efficacy of the balsam in such cases does not appear. But, however this may be, the testimony of this distinguished writer is of great value, as it will doutless serve to settle the question respecting the propriety of the practice.

The balsam of copaiba has been used as a vermifuge medicine; and is regarded by Dr. Ribes and others as highly efficacious for the destruction and expulsion of the different varieties of intestinal worms. It forms a component part of several preparations employed in cases in tænia and lumbrici. Merat and Delens (*Dict. de Mat. Med.* vol. ii.) state that the copaiba has been efficaciously used by a medical practitioner of Lyons in a case of tænia. But the fullest and most satisfactory account we have on the subject, is recorded by Chauffard of Avignon, in one of the volumes of the *Transactions Medicales* of Paris (13 p. 29 July, 1833). A soldier of the garrison was admitted into the hospital of Avignon, under the care of Dr. C., for gastric fever. He recovered from this disease in due time. But being affected with gonorrhœa he was retained in the establishment, and put under the use of Chopart's mixture, which contains a large proportion of copaiba. Soon after taking the medicine, he was troubled with borborygmi, accompanied with noise in the abdomen and salivation. These continued during several days; but as the pulse was not disturbed, and the skin was cool, the tongue moist, and the appetite good, those phenomena were attributed solely to the ingestion of the copaiba. Finding that the medicine did not produce any serious derangement, and that the gonorrhœa was getting well under its use, it was continued; and on the eleventh day the patient voided, both to his own surprise and that of the physician, a very long tænia, which appeared to be entire and alive. It is worthy of notice, that the patient had, for a long time prior to the attack of fever for which he was admitted into the hospital, enjoyed good health, and had experienced none of the phenomena usually indicative of the presence of such a worm in the alimentary canal.

Dr. Armstrong suggests the propriety of using the copaiba in what has been denominated the schirro-contracted rectum, on the supposition that it will keep the fæces in a liquid state—an effect very much to be desired—as the patients are always more easily cured when it occurs. It may he thinks from its specific operation on the lining membrane of the intestines, contribute to induce a favourable change of action on the morbid part itself. How far Dr. A.'s supposition on this subject will be verified by experience I am unable to decide, as I have not had occasion to employ the copaiba in cases such as he alludes to. Nor can I say any thing positive of its use in what has been denominated anal leucorrhœa, or white discharge from the anus (*Hæmorrhoides albæ mucosæ* of some writers). Montegre, in his excellent treatise on Hemorrhoidal Affections, recognizes the existence of several varieties of the anal leucorrhœa, according as the disease is true or inflammatory; false or ulcerous; symptomatic or venereal; acute or chronic. In the first variety—the inflammatory; he recommends antiphlogistics; and when the urgent symptoms have been removed, and the disease has assumed the chronic form, he prescribed *eccoprotic* purgatives, tonics, and finally balsamic medicines, at the head of which he places copaiba.

Montegre, however, prescribes the medicine with no other view than to arrest or lessen the discharge in these cases. But there is every reason to believe that, if it be beneficial at all in hemorrhoids, and of this there can be no doubt, it does not operate solely by virtue of its astringent properties, but by modifying the diseased condition of the tissue on which the discharges depend, and thereby restoring it to the healthy state. The only case of disease approximating to the description given of anal leucorrhœa in which I saw the copaiba employed, occurred a few years ago. The patient had long suffered under the complaint, and had been under the care of a great number of physicians, both in Europe and this country. The discharge had come on soon after recovery from a scorbutic affection, and was suspected by some to depend on a venereal taint. A variety of general and local means was resorted to in vain. The balsam of copaiba was allowed a fair trial; but although it seemed at first to diminish the discharge, and to modify its nature, it soon lost its effects, and was in consequence laid aside.

I can speak with more confidence of the efficacy of the copaiba in piles. On this subject, neither Montegre, Larroque, nor Calvert say a word. The last writer, however, remarks that in some forms of the disease, cubebs and *other remedies of the sort* are useful, and among these we may perhaps suppose that copaiba is meant to be included. But if the writers we have named are silent on this head, others speak in decided terms of the good effects of the remedy in the disease in question. The late Dr. Cullen was in the habit of prescribing it with, as he informs us (Mat. Med. ii. 135 Am. ed.) great advantage. He derived the practice from an empirical practitioner. Motherby states that the copaiba gives relief; Parr that it is occasionally trusted to; Mr. Brande that it has been found effective; Dr. James Johnson that it is a valuable remedy in the disease in question. With the late Dr. Kuhn of this city it was a favourite remedy, and among our present practitioners there are, to my certain knowledge, several who will willingly join in the opinion that it sometimes proves highly serviceable. To specify the kind of cases in which it is more particularly applicable, and to point out the manner in which it operates, are undoubtedly objects of considerable interest to every physician. But on these subjects I cannot at present say more than a few words. Judging from what I have had occasion to observe myself, or from all I have heard, I am disposed to say, that when there is much vascular irritation in the parts, the copaiba will not be as useful as when this morbid state has been reduced by antiphlogistics, and the discharge consists in part of mucus. Dr. Good entertains the same opinion, and remarks that he has often tried the remedy in the disease—probably in the other varieties—without benefit. Dr. Cullen, though he does not express himself very positively on the subject, seems inclined to ascribe the benefit he obtained from the copaiba to the laxative operation of this medicine. While Dr. Good, from numerous trials, is induced to ascribe its salutary effect rather to the common principle on which it acts on the mucous membranes generally, than to the above mentioned power. On this point I have no hesitation in coinciding with the last mentioned learned physician; both on account of the effects obtained from the copaiba—without its operating as a laxative—in diseases of the mucous membranes of the lungs, bladder, and intestines; and in consequence of finding that in hemorrhoidal cases, in which it has proved eminently serviceable, laxative medicines had been used unavailingly; and that it has afforded relief without increasing the alvine evacuations.

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ON THE STRUCTURE OF ERECTILE TISSUES.

In our number for January 6th, 1836, we published a detailed account of the discoveries of Professor Müller in the minute structure of the penis, the substance of which was that there exists a separate series of minute arteries (which, from their form, he named *helicine*) projecting into the venous cells, and producing erection of the organ by the increased flow of blood through them, under circumstances of nervous excitement. His investigations were certainly of great importance, not only as establishing the minute structure of the organ described, but, in a general point of view, as relating to a distribution of vessels to which no similar arrangement had been presumed to exist in the animal body

—viz. arteries terminating with free extremities, in cells communicating with veins. We have now, however, to notice a complete refutation of the views then advanced, and since almost universally received, which has been published in the last number of Müller's *Archiv. für Anatomie und Physiologie.* It is from the pen of Professor Valentin, the well-known author of the Entwickelungsgeschichte, whose talent for minute observation is certainly not inferior to that of Müller himself.

He says that the result of numerous examinations has convinced him that the so-called helicine arteries are by no means peculiar vessels, terminating with their extremities, and hanging free in the cells of the corpus cavernosum, but only minute arteries that have been divided or torn; and that, on the contrary, the real distribution of the vessels of the corpus cavernosum follows in every respect the most simple laws. In making the injections of the penis, different portions of it receive different quantities of injection; in general the posterior half is most injected, and of this the anterior fourth is best adapted for examination, because in it the injection will probably have exactly filled the minute arteries without passing into the venous cells. If a transverse section of a portion thus injected be made, one sees on its surface, together with arteries of various sizes running tortuously in the uninjured fibrous cord-like partitions* of the cells of the corpus cavernosum, the *helicine arteries*—that is, arteries which, to the naked eye, or with a lens, seem to terminate suddenly, either singly or in tufts, which lie partly on the fibrous cords, but principally hang loose in the cells, and which when placed in water appear fixed at one end, while the other floats out in it. They all, even to the naked eye, appear completely inclosed by a membrane exactly like the tissue of the partitions; and if they are examined with a microscope, their ends appear sometimes rounded, sometimes obliquely or unevenly truncated, sometimes granular or even irregular; in a word, so inconstant is the form of their terminations, as at once to suggest the opinion that they are unnaturally formed.

If a cleanly cut transverse section be examined with a good lens, with which a view to some little depth may be obtained, it will at once appear that there are helicine arteries only at the surface, and in the cells lying near it; but that in those cells which lie deeper, no trace of them can be seen. At the same time it may be remarked, that every fibrous cord, without exception, contains an artery of proportionate size, which runs in it tortuously, or rather in the form of a cork-screw; and that these arteries, like the fibrous cords in which they lie, communicate together. If the surface of the section be examined under water, it will be seen that at the divided extremity of each fibrous partition, one or more helicine arteries seem to be given off, according as one or more smaller fibrous cords are given off together or separately from the chief one. These smaller fibres, when they were divided, had separated and contracted a little, and thus, and by their naturally winding course, the tendril-like or crozier-like terminations of the supposed helicine arteries were produced. Thus one sees how the helicine arteries are formed under one's own eyes. And wherever the minute arteries are filled with injection they may be made to appear helicine by dividing the fibrous cords in which they lie. In a longitudinal section the same thing may be observed, only that here still more partitions being divided, more helicine arteries are seen; and more still may be made by cutting the corpus cavernosum, as one would with a saw; or by washing out the injection from the cells into which it has run from the arteries, and so tearing a greater number of the extremely minute cords. By the careful examination of several of the arteries, and their fibrous cords supporting them, which are thus divided, a sufficient proof may be obtained that the apparent enlargement of their extremities, the closeness of their orifices, and their tortuous or tendril-like course, depend merely on the mode in which the section has been made, or on some artificial means employed in the examination.

In the posterior part of the corpus cavernosum in man the cells are large, and the fibrous cords traversing them very delicate, so that as all the minute arteries run tortuously on them, the helicine arteries seem to be very abundantly and evidently present. But more anteriorly, where the cells assume a more honeycomb appearance, and the fibrous partitions are more band-like than cord-like, and the arteries running on them are proportionally much smaller than the membranes surrounding them, the helicine appearance cannot be demonstrated. The most easy refutation of the presence of the so-called helicine arteries is found in the human species (in which, it will be remembered, Müller said they could be most easily demonstrated,) and next to it, in that portion of the corpus spongiosum urethræ of the horse and ass, which immediately surrounds the urethra. —*Med. Gaz.*

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* *Balken*, beams: the fibrous cords or bands which bound and traverse the so-called cells of the spleen.

ON THE STRUCTURE OF THE VACCINE VESICLE.

There is a prejudice entertained by many against investigations relating to subjects of no very obvious practical importance. But some judge very rashly on such matters; for there may be topics which, to the routine practitioner, may appear trivial, but which, to the more scientific practitioner, appear deserving of notice, and worthy of being made subjects of investigation. For example, by some mere practical men the minute anatomy of the tissues is neglected and deemed little better than laborious trifling; while there cannot be a doubt that minute and accurate anatomy is the very basis of correct pathology.

These are subjects, undoubtedly, on which time and labour may be unprofitably spent; but we should not be over-hasty in deciding what subjects shall be investigated, and what proscribed. It has been well observed, that no fact stands isolated, or undeserving of attention; and I consider that every person in our profession who establishes any particular fact or facts relating either to the healthy or morbid anatomy of any of the tissues, to the symptoms of any particular disease, or to the operation or exhibition of any remedial agent, is deserving of approbation. As an encouragement to the recording of facts, moreover, it should be remembered that, although some facts, at the time they were made known, appeared unimportant, they have afterwards assumed greater importance.

I make these few remarks to bespeak attention to the following observations, which to some gentlemen may appear more curious than useful. If I wished for an excuse for making them public, it would be the following, viz., that they relate to a subject respecting which no facts can be unworthy of notice, or uninteresting. But I care not in what light my observations are viewed, provided they be correct.

Dr. Jenner, who conferred so great a blessing upon mankind by the promulgation of vaccine inoculation, paid little attention to the anatomy of the cowpock vesicle. He wisely endeavoured to disseminate his beneficent discovery, and assiduously laboured to distinguish the genuine from the spurious appearances succeeding vaccine inoculation, and to ascertain the circumstances which militated against the success of the operation, or which rendered the system unsusceptible of its influence.

Dr. Cappe, of York, was, I believe, the first who gave an anatomical description of the structure of the vaccine vesicle. He described it as consisting of a congeries of minute cells; and his account has been adopted by all succeeding writers: by Dr. Willan amongst the rest.

From my own observation of the phenomena and progress of the vaccine vesicle, I have been led to entertain views regarding its structure somewhat different from those hitherto made public. At one time, I was inclined to believe that the vesicle in question originated in the exhalents of the skin, or, as Breschet has recently called them, the sudoriferous canals. From this supposed seat of the affection I thought that the punctuated appearance of the cicatrix, and the cellular structure of the vesicle, were tolerably well accounted for. But subsequent and more attentive observation has convinced me of the inaccuracy of this opinion, and has led me to believe that the primary seat of the vaccine vesicle is in the villi of the cutis—in the capillary blood-vessels which lie on the outer surface of the corion. Soon after successful vaccination, a minute inflamed point arises, and by the fifth day has assumed a vesicular appearance. The vesicle soon after presents a distinct depression at its centre, and an elevated appearance of its circumference. When the fully formed vesicle is punctured at one point only, it is found that a very little lymph escapes, and that for its complete evacuation numerous punctures are requisite. Hence, the cellular structure of the vesicle has been justly inferred. It is generally believed that the cellular structure of the vaccine vesicle is derived from the outer surface of the corion. It appears to me that this view is inaccurate; for the structure in question is, I am convinced, an inorganic one, resulting from a partial coagulation, which the contents of the vesicle undergo after being secreted. The cellular appearance of the contents of the vaccine vesicle is analogous to the pseudo-cellular appearance which the contents of vesications produced by cantharides sometimes exhibit, when the cuticle is allowed to remain entire longer than usual. This somewhat remarkable appearance of vesications must be familiar to all practitioners, and will prove even to the most bigoted minds that my opinion as to the cellular appearance of the vaccine vesicle being the consequence of a peculiar change in the fluid which it contains, is at least neither an impossible nor an improbable one. M. Gendrin, who has most recently, and with great minuteness, described the anatomical peculiarites of vaccinia, adopts the generally received opinions. Like his predecessors, Drs. Cappe, Willan, and others, he admits the *organic* cellular structure of the vesicle. He describes the cells as being "disposées circulairement sur deux rangs concentriques. On distingue aisement à la loupe les cloisons radiées assez peu régulières, entre lesquelles sont formées les espèces d'alvéoles qui contiennent le vaccin."* He describes further, the radiating *septa* as inserted into a central infundibuliform process, which produces the central depression observed on the surface of the vesicle. I cannot but think that M. Gendrin's account of the minute appearances of vaccine vesicles is somewhat coloured by fancy; and I am inclined to reject, as altogether fanciful, his description of the infundibuliform process. I am quite convinced that the alveolar structure so minutely described by Gendrin, is an inorganic product; its arrangement varying in different cases. As to the central depression of the vaccine vesicle, it results mainly from the lymph in the centre of the vesicle, immediately under the cuticle. I do not, however, speak very decidedly on this point. But observers will remark how early, in many cases, desiccation at the centre of the vesicle begins to take place, and the regularity with which it proceeds from the centre to the circumference.

The cicatrix succeeding vaccination affords no presumptive proof, I think, in favour of the organic nature of the cellular appearance of the interior of the vaccine vesicle, as some writers would have us to believe. Thus Mr. Bell, the author of a very sensible short treatise on Cow-pox, states, that the indentations of the cicatrix correspond to the cells of the original vesicle. The cicatrix is caused by absorption of the capillary vessels on the surface of the corion from pressure of the scab during the desiccation of the vessel. This opinion is proved to demonstration by the beautiful and simple experiments of Dr. Sacco, of Milan. This ingenious physician prevented the formation of scabs, during the progress of vaccine vesicles, by excluding the air from the parts by a very simple apparatus. In those cases where he prevented the formation of a scab, no visible cicatrix was left behind.† Proof stronger than this of the agency of the scab in producing the vaccine cicatrix is not to be desired, nor do I think it could be obtained. As to the punctuated or pitted appearance of the cicatrix, I have only to state, that it appears to me to be merely the natural appearance of the corion exposed to view by being deprived of the villi with which its outer surface is invested in the normal state. Whatever disease or injury removes this vascular layer, and allows the outer surface of the corion to be exposed to view after cicatrization, will produce the same appearance as that met with after vaccination. Thus, in small-pox, burns, or scalds of the cutis, I have seen a cicatrice produced in every respect identical to those produced by vaccination.—*Ibid.*

* Hist. Anat. des Inflam. tome i. p. 429.

† Tratt. di Vaccin. p. 51.

ABSORPTION OF WATER THROUGH THE CUTICLE.

Professor Berthold has repeated Seguin's experiments on the absorption of water through the uninjured cuticle, and has arrived at results differing considerably from his. The conclusion which Seguin drew from his experiments (see *Annales de Chimie.* 90, 92, 93,) was, that there is no condition under which an increase of weight by the absorption of water in bathing takes place—a doctrine which, though it seemed contrary to some well-known facts, has been very generally received. Berthold's experiments were made by carefully weighing himself in scales which would carry 125 pounds, and turn with less than a drachm. The temperature of the baths was 22°–28° R. The experiments were made in August, 1835, four hours after a meal taken in the middle of the day, and varied only in respect to the time during which the immersion continued. He found that in a quarter of an hour he gained 3 drachms; in three-quarters of an hour, 7 drachms 20 grains; in an hour, 1 oz. 30 grains; so that, reckoning the loss of weight which was constantly taking place by the pulmonary exhalation, at seven grains per minute, which is the calculation that Seguin also adopted, the real increase of weight in the bath was 4 dr. 45 gr. in a quarter of an hour; 1 oz. 4 dr. 35 gr. in three-quarters of an hour; and 1 oz. 7 dr. 30 gr. in an hour.

This calculation does not allow for the loss of weight that would take place in the bath by the washing off of loose portions of cuticle or other adhering substances, nor for that by the perspiratory and sebaceous secretions. The latter, in vapour baths, are carried on with remarkable activity. He quotes two experiments made by a person, aged 32, who remained for half an hour in a Russian vapour bath, at 43° R., and who in each case lost about a pound and a half in weight.—*Müller's Archiv.*, *March*, 1838.—*Ibid.*

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DR. TOGNO'S SOLAR SPECULUM.

To the Editor of the Eclectic Journal of Medicine:

I have just read in your Journal for September, the description of Dr. Sharpless's Auriscope. In the total absence of any other speculum for the *inspection* merely of the ear and nose, this instrument has the advantage of portableness; but I beg to differ from your estimable correspondent, as to the many advantages which are by him ascribed to this auriscope.

I shall now inform you of the objections to its use:

1st. There are at least one half of the patients that require to have their ears inspected, who cannot tolerate the pulling of the auricle, much less the introduction of the dilating valves of the speculum.

2d. Whenever it can be tolerated, and an operation must be performed in any part of the *meatus externus*, or on the *membrana tympani*, or in its absence, on any part of the cavity of the tympanum, this auriscope, when it is most required to see what one is doing, could not be used, because it would be in the way of the operator's hand, or the hand would stand in the way of the reflected cone of light. Moreover, in order to hold this auriscope, the operator must employ one of his hands, or have an assistant to hold it for him, which is very objectionable, because the latter cannot hold it so as to enable the operator to see easily and distinctly.

3d. The patient must be placed in the sun, in order to allow its rays to fall on the mirror of this auriscope. Therefore, even in the most favourable exposure, the aurist cannot command the direct rays of the sun in his office, and consequently the patient must be taken out of doors in the sun to examine the parts to be treated. In this case, and being out in the sun, *no practitioner needs an auriscope of any kind*, because the direct rays of the sun in this situation can be directed in the *meatus externus*, by simply inclining the head of the patient, and allowing him to rest, on another chair, the hand opposite to the side to be inspected. But this exposure is not very pleasant, either to the operator or to the patient, especially when the thermometer in the sun stands at 100° or 120° F.—I know it from actual experience, acquired before I constructed my solar speculum, which I have had in daily use for more than two years; and its positive advantages were witnessed by Dr. Sharpless many months ago. But more of this by and bye.

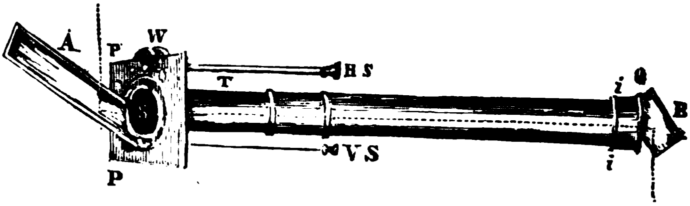
But if there be no sun visible, or at night for instance, how is the doctor going to employ his auriscope? Is it not at such a time useless?

In conclusion, such an auriscope cannot be used in a great number of cases; the patient must be under the sun's rays as well as the instrument; it is useless when it is *most required*, that is to say, when an operation in the *meatus externus* is necessary, because it is in the way of the operator, and he must also employ one of his hands to hold it, in order to direct the light *into the ear* to his own satisfaction.

Allow me now, sir, to introduce to your numerous readers my *Solar Speculum*, and my *Gas-Speculum*, for the inspection of the ear, the nose, the vagina, anus, &c.; in a word, every internal cavity that is in obscurity, and that it is desirable to examine ocularly.

I consider that this speculum is to the researches of the eye in medical matters, and the ocular demonstration of their actual state, what the stethoscope is to the ear for detecting, by means of sounds, the abnormal condition of the three principal and closed cavities of the body.

One of the windows of my office being situate on the south side of the house, I have the sun from the moment it rises till it sets; and attached to it are shutters which when closed, prevent the sun from incommoding me. In one of these there is a small box, twelve by eight inches, with an opening inside, and a window on the outside, which has fastenings to keep open and shut. In this box is placed my solar speculum, fastened to the chair on which it rests.



This instrument is placed in the box above alluded to, and the vertical plate P P is firmly held perpendicularly by proper fastening in the plane of the south side of the box, so that the mirror A is freely exposed to the sun's rays. This mirror has two movements, one rotatory around the end T of the tube T O, and describes a complete circle with its surface; the other movement is vertical to the plane of the plate P P.—The first movement is produced by a wheel placed at W.—The second by a screw and wheel at S. This latter movement is produced by turning the rod V S, and the former by turning the rod H S.

O B is a second mirror that has also two movements; one rotatory from i to i, describing a circle; the other has a hinge-like motion at O. So that the sun's rays reflected by the mirror A, enter the tube T O; are again reflected by the mirror O B, in a direction either to the right or to the left, up or down; in a word, towards every point.

The light, thus twice reflected, is so pure and mild that all objects are distinctly seen; although by their position, and without the assistance of some such contrivance, they would be in utter obscurity.

Thus we have an instrument with which we can throw a strong cone of pure light into any cavity, in any position or situation the patient may be placed. It does *not* demand the hand or the *attention* of the operator for several minutes, when once the cone of light is directed into the cavity to be examined. It has also the advantage, that while the patient may be placed in utter obscurity, and without his being at all exposed, all the cavities, such as the vagina and anus, as well as the ear and nasal passages, can be inspected with the most perfect privacy.

I think this instrument fulfils all that can be expected and desired from it, namely: simplicity of structure, facility of directing the light in every direction and at all distances, preventing exposure out doors, facilitating the operator's inspection by its light, without its being in his way; and it can be used from sunrise to sunset.

I am not aware of any such instrument having ever been invented, and applied to so useful a purpose. It is true, that in the machinery itself there is nothing new, for the movement of the mirror A is precisely the same as that of a solar microscope; but its combination with the other parts of this instrument, and its useful application, I claim as originating with me.

I seldom find it necessary to artificially dilate the *meatus externus* by means of a speculum, to enable me to see its parietes, or the *membrana tympani*, or the cavity of the tympanum; but whenever I find such a state of things as to prevent me from having a sight of the internal parts, I always have recourse to the common speculum which is used by all practitioners for the inspeetion of each particular cavity.

In my next I shall trouble you with a description of a *Gas-Speculum;* to be used when it is cloudy, dark, or at night, at which times the surgeon is precluded from making any examination, and is unable to operate.

Very respectfully, J. TOGNO,
92 Locust Street, Philadelphia.

ON A NEW MEANS OF DIAGNOSIS BETWEEN AMAUROSIS AND CATARACT.

BY M. SANSON.

If a light be presented before an amaurotic eye—the pupil of which is either naturally or artificially dilated—three distinct images of the flame may be invariably observed. Of those three images two are upright, and one is *reversed:* they are situated, the one behind the other in the following order. The anterior one, which is also most distinct, is one of the former or *upright* images. The posterior or deepest, which is the least distinct, is also one of the upright images. The intermediate image is the *reversed* one.

This last or reversed image is paler than the first, but brighter than the second, upright one; and it also differs in this circumstance, that when the light is moved to either side or round the eye, it is separated from the other two images so as always to occupy the opposite side, while they (the upright ones) are seen to follow the position of the light, moving to the right or left, upwards or downwards, according as the candle is moved in any of these directions.

If the candle be held opposite to the axis of the eye, all the three images are situated one behind the other—the two posterior ones being, as a matter of course, masked and obscured by the anterior one. But if it be held to a—say the right—side, then the reversed image will be seen in the opposite or left angle of the eye, while the upright ones are seen at its right angle.

If it be moved around the eye, the upright images follow it together, while the reversed image, although describing the circle in the same direction, is always at the opposite end of the eye's diameter.

The unpractised observer may experience some difficulty in observing these phenomena.

The patient should be placed in a dark chamber; and let us suppose that the candle is held at the external angle of the eye; the anterior upright image, which is large and brilliant, will be observed at the outer and upper part of the pupil. If we now look very attentively into the bottom of the eye, the reversed image will be seen at about one line's breadth from the preceding upright image and at the meeting of the lower with the middle third of the diameter of the pupil—the right extremity of which (the diameter) is occupied with the anterior upright image.

If the surgeon does not detect these phenomena at first, he has only to move the light upwards and downwards, once or twice, fixing his look steadily on the pupil, and he cannot fail to observe that one image rises and the other descends.

As to the posterior or deep-seated upright image, it is always very difficult to perceive it, in consequence of its paleness, and of the intervention of the other upright one—of which it looks like the shadow.

M. Sanson assures the surgeon, that when once they have detected the very images, they will always readily perceive them afterwards, *provided there be no obscurity or opacity of the lens.*

Whenever a cataract exist, no matter what may be the stage or progress of the disease, none of the images, described above, are ever perceptible.

Some time ago (says M. Sanson), a patient was sent to me from a great distance to be relieved by operation from a cataract; *the three images were perceived; the patient was effected with glaucoma.*

A few days ago I was desired to visit a patient, who had been pronounced by several medical men in the metropolis to be effected with cataract: I perceived the three images and declared the case to be one of amaurosis.

You (his hearers) have lately seen a woman, whose sight was entirely lost. She had been sent to my care as an amaurotic patient. There was no opacity visible in the field of the pupil; but two of the images were absent. I gave it as my opinion that she had two cataracts; and the accuracy of this diagnosis has been subsequently confirmed.

The preceding remarks were made by M. Sanson, one of the surgeons of the Hotel Dieu in Paris, in his course of lectures on ophthalmology during last year. He had first noticed the phenomena, described above, about twelve months previously; and he had availed himself of his ample opportunities in the hospital during this period to test the accuracy of his opinion. He assures us that his experience has quite satisfied him of its truth.—*l'Experience; Journal de Medicine et Chirurgie.—Med. Ch. Rev.*

REMARKS UPON THE CONSTRUCTION OF ARTIFICIAL TEETH.

BY THOMAS EDWARD EDEN, ESQ. M. R. C. S.

The most accurate and scientific way of supplying the deficiencies of nature is by resorting to the pressure of the atmosphere to keep the teeth in approximation with the gums. To elucidate this, I shall make some remarks upon the processes of modelling and fitting.

The art of modelling depends in a great measure upon the temperature of the wax, the steadiness of the hand, and the consistence of the gums. If the wax be too hard, the soft parts of the gum give way upon the necessary pressure, and an accurate model is not obtained; if it be too soft, it is found to be not sufficiently tenacious to retain its form, but after having been pressed upon the gum, in the act of withdrawing it, it becomes distorted and incorrect. The material of which the cast is composed being plaster of Paris, is also liable to alter its form, in consequence of the evaporation of the water with which it is mixed.

A gum may be of a different consistence in different parts. Where it forms a thick covering to the alveoli, it will most likely be of a soft consistence; but where the alveoli are thinly clothed with gum, there will not be so much yielding. The pressure of wax of a uniform temperature throughout will therefore produce a yielding of the soft parts, without a corresponding yielding of the hard parts, and consequently the model will be imperfect.

The usual mode adopted after fitting the model is to retain the teeth *in situ*, by means of a spiral spring placed on each side, in approximation with the mucous membrane covering the buccinator muscle, and connected with the upper and lower artificial teeth. This is not, however, the most perfect way of repairing the loss, especially in those cases where the whole of the upper teeth are wanting, while the whole of the under ones remain—the usual method of proceeding under such circumstances being to fit gold caps over the lower teeth, in order to afford an attachment for one end of the spiral springs. The mouth thus becomes unnecessarily filled; the motions of the teeth are confined to the extent of the springs; and the latter often produce considerable irritation of the mucous membrane with which they are in contact. But since the pressure of the atmosphere amounts to fifteen pounds on every square inch, and there are generally several square inches of surface on the gums of those persons who have lost their teeth, it is obvious that if they were accurately fitted, they would retain their situation without any spiral springs, and by the pressure of the atmosphere alone, even in opposition to the force of gravity, the powerful action of the muscles, and the great mobility of the parts entering into the formation of the mouth. I have often seen cases where, notwithstanding these opposing forces, there has been an adhesion requiring a weight of many pounds to overcome it. This will, of course, vary according to the extent of surface presented by the gum to be fitted; but in most cases help can be supplied upon these truly scientific principles, the advantages of which are, in addition to those above mentioned, that many cases can be treated which would be otherwise abandoned.—*Lon. Med. Gaz.*

ON THE USE OF INDIGO IN EPILEPSY.*

It is particularly to Ideler and Grossheim, of Berlin, that we are indebted for our late knowledge of the effects of indigo in epilepsy. Idler used the following electuarium:

Indigo, pulverat.	℥j
Pulv. aromatic,	ʒj
Syrup, simplic,	*q. s. ut.*

Fiat electuarium.

The first portion of which is to be taken in two days; but afterwards, the whole in one day. The result of this treatment has been astonishing. Out of twenty-eight epileptics, six are said to have been cured radically, and without relapse; three had a relapse after eight or twelve months; and eleven were very much relieved. In six only was no effect of the remedy to be observed.

* We are indebted to Dr. Riersen, of this city, for this article. We shall be thankful for similar favours hereafter.—*Ed. Eclec. Med. Jour.*

These happy results have already caused some French physicians to try the remedy recommended. Noble, physician to the Hospital at Versailles, has used it in three epileptics: and in none of them has relapse yet appeared. Professor Roche has, since 1835, tried it in nine cases, but without any remarkable effect; though it is to be observed, that six of them were, at the same time, insane. Patients using the remedy for about fourteen days have their urine and excretions of a bluish colour: now and then colic, diarrhœa, and vomiting of bluish matter were observed. At present, new experiments are in progress at "*Hospice des Incurables;*" and from 5th March, 1836, to November of the same year, Dr. Blanche has used this remedy in ten epileptics; out of which, one has for five months had no relapse; four are exceedingly better; but in the rest, no effect seems to take place. Only in one or two has the remedy caused vomiting.*

ON THE USE OF WATER-PROOF AIR-CUSHIONS AS SUBSTITUTES FOR THE HYDROSTATIC BED.

BY THOMAS LAYCOCK, ESQ., HOUSE SURGEON TO THE YORK COUNTY HOSPITAL.

Allow me to remind or inform the professional public, that the air-cushions sold in the shops, made of water-proof cloth, become very convenient substitutes for the hydrostatic bed, when filled with water. A patient in this hospital has used one for the last three weeks with the best effect. The bed-sores on the hips and sacrum, from which she suffered dreadfully, are healing rapidly, although the sacrum was laid bare; and she expresses herself as receiving the greatest comfort from it. I provided her with a Macintosh neck-pillow, which has very much the shape of a harness-collar. The loins and hips are raised, and it is of course necessary to elevate the shoulders and back to the same level by means of pillows.

A Macintosh sack, four feet deep and three and a-half broad, moderately filled with water, and laid on a common mattrass, would afford the comforts derived from the hydrostatic bed, be much less expensive than the latter, and very convenient from its portability. It would support the whole trunk, and so prevent sores being formed on the shoulders. These water-cushions might be made extensively available in both hospital and private practice. It would, of course, be necessary to be very careful how they were used, after patients suffering from contagious diseases, especially erysipelas. I do not wish these remarks to be considered as offering anything new to the public.—*Lon. Med. Gaz.*

QUININE IN ENLARGEMENTS OF THE SPLEEN.

There was lately, in the service of M. Andral, at *La Charité*, a case which illustrated the efficacy of quinine in enlargements of the spleen.

The patient was a shoe-maker, who was in a poor, sickly state, in consequence of repeated attacks of ague. The spleen had become enormously engorged; and it was chiefly with the view of obtaining relief from the distress which this occasioned, that this man had gone into the hospital five months ago.

M. Andral had given a very fair trial to the sulphate of quinine in large doses for a length of time—from 12 to 30 grains daily. But no benefit had resulted from this practice.

Subsequently the splenic region was repeatedly blistered; but with no better effects. Symptoms of ascites have come on, and the strength of the patient has become more and more reduced.

The inutility of the quinine in the present case ought not, however, to prejudice us too much against its use in similar cases. We have seen several examples in which it proved of decided efficacy, in the practice of M. Chomel, at the

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* Bibliothek fur Loger, by Otto, M.D., Copenhagen, 1837.—No. 2.

Hôtel Dieu. In all, the disease of the spleen was the result of intermittent fever. The quinine must be administered in large doses—10 or 12 grains daily—for a considerable length of time.—*Bulletin General.*

No mention is made of any of the preparations of iodine having been tried in the preceding cases.

We have found the hydriodate of potass, in combination with quinine, decidedly useful in several instances of enlarged spleen.—*Medico-Chirurg. Rev.*

UTILITY OF ERGOT OF RYE IN PARALYTIC AFFECTIONS.

It is reasonable to presume that the *modus operandi* of this remedy in tardy parturition, amenorrhœa, &c., is by its stimulant influence on the lower extremity of the spinal-marrow. Hence some physicians have been led to try the use of it in some case of *paraplegia;* and, according to their reports, decided benefit has been thus obtained. It seems to have no influence in *hemiplegia;* the seat of that more unfavourable species of palsy being either in the brain itself, or in the cervical portion of the medulla.

The Ergot has been employed with marked benefit in that form of *paraplegia,* to which infants during dentition and young children are subject.

Adults too have derived equal benefit from its use. Thus M. Ducros of Marseilles mentions the case of a sailor who, by falling from the rigging of his ship, lost the use of his lower limbs completely. Moxas, and other means, had been unsuccessfully tried by Professor Delpech; and nothing seemed to do any good but the Ergot of Rye, under the administration of which he quite recovered.

The usual dose, which it is proper to commence with, is six or seven grains; this should be raised gradually to thirty or forty grains, or until the patient begins to feel prickings, and a sense of formication in the limbs, somewhat similar to what are produced by the use of the nux vomica.

An excellent adjuvant of its remedial virtues is the occasional exhibition of a turpentine enema.

Whenever we administer the Ergot of Rye for a length of time, it is necessary to guard against the *septic* influence of the agent on the system, by recommending the use of a generous animal diet, &c. &c. M. Ducros mentions a case in which sloughing of the heel supervened; by proper means, however, both the gangrene and the paralysis were cured.—*La Lançette Française.—Med.-Chir. Rev.*

PROTO-IODURET OF IRON IN SYPHILIS.

This chalybeate has been, of late, employed with very decided advantage, internally as well as externally, in the treatment of old syphilitic cases, more especially in persons of a scrofulous or lymphatic constitution. It may be usefully combined with bitters, anti-scorbutics, &c. in the dose of from six to forty grains daily.

As an external remedy it may be employed as a lotion or injection.

The proto-ioduret of iron is obtained by heating together about fifty parts of iodine, and fifteen parts of iron filings, with a hundred parts of distilled water; the liquor acquires a greenish colour. It is to be filtered, and quickly evaporated to dryness, protecting it all the while as much as possible from contact with the atmospheric air.

The salt is to be kept in a firmly corked phial.—*Revue Medicale.—Med.-Ch. Rev.*

CASES OF INVERSION OF THE UTERUS, WITH REMARKS.

BY THOMAS RADFORD,

Surgeon to the Manchester Lying-in Hospital, &c.

This is a valuable practical paper. The author takes a comprehensive view of the whole subject,—examines candidly the various opinions of preceding writers as to the causes, nature, and treatment of the affection,—and renders good reasons for his own. We can only find room for a few extracts relating to this latter part of the inquiry.

Causes of Inversion. "This accident has been attributed to causes purely mechanical, the uterus being unresisting, and passively obedient to their influence. The practice of pulling too early and violently at the funis, after the expulsion of the child, before the uterus has contracted, so as to detach and expel the placenta, has been generally considered as the cause of inversion; but we know that the accident happens before any force has been applied to the funis. . . . It has occurred when the patient had been delivered of a dead child, the funis so putrid as to break with a very slight effort. It has been found before the cord was separated, and the child given to the nurse. In the practice of Ruysch, this circumstance took place after he had extracted a dead child, &c. These circumstances show that there is a power inherent in the uterus to become inverted. The pulling of the funis is so common a practice amongst our midwives, and done without the least consideration of the condition of the uterus, that, if it was so frequent a cause as is usually stated, inversion, instead of being one of the most rare, would be the most common accident in midwifery. Some writers have thought that a short funis is a frequent cause of inversion; whilst others think, in order to act, it must be inserted in the centre of the placenta, and that this mass must be attached to the fundus uteri. Now, it is evident, if brevity of the cord is capable of producing so serious an accident, these peculiarities will greatly add to its influence. But, amongst the published cases of inversion, there is, so far as the writer knows, but one where this shortness existed. It often occurs without diminished length in the cord; whilst, on the contrary, children are frequently born where it is very short, and yet no such event happens. The funis has been ruptured, and the placenta disrupted, and yet the uterus was not inverted.

"In order that the causes which have been now alluded to could operate effectually to produce inversion, there must be such condition of the uterus present that it becomes tacitly obedient to their influence. Most systematic writers, as also others, have supposed such to be the case. They have said that the uterus, previous to inversion, is in a state of extreme relaxation, exhaustion, or collapse, and that it offers no resistance to any force applied by the funis. These opinions are at variance with that of the writer.

"It appears to the writer that the uterine pain, diminution of bulk, firm resisting feel, sudden formation, and rapid protrusion, warrant him in the deduction that the *fundus* and *body* of the uterus, so far from being in a state of *collapse* or *relaxation*, are really in a state of *unnatural excitement* and *action*. But this is not the case with the os uteri: on the contrary, it is soft and yielding, as we find that it offers no resistance to the coming down of the tumour, whose protrusion is forcible and rapid. If these statements be true, it is evident that the fundus and os uteri are in directly opposite conditions: the former is in a state of violent contraction, the latter in a state of relaxation; and that this relative difference in these two parts of the organ is indispensably necessary to exist where inversion occurs.

"From what has been stated, it may be concluded that quick labour, whether natural or artificial,—a disturbance of this process in any of its stages, or any of those circumstances which produce irregular contraction of the uterus, are, singly or combined, the causes of inversion.

Treatment. "When the uterus is inverted only in a slight degree, the reduction may be accomplished with great ease, and the attempt should be made as soon as it is discovered. As the fundus uteri has not, or only slightly, passed through the os, the placenta cannot wholly protrude through this orifice; and, consequently, the fundus should be returned before the placenta is separated. For, if an attempt were made to detach the placenta, the operation must be slow, uncertain, and incomplete, and the danger of hemorrhage incurred, or a greater degree of inversion produced. When the hand is introduced through the os uteri, the fingers should be slightly bent, so as to form a kind of crutch, to carry up the fundus, which sometimes rapidly springs up. The placenta is now to be separated, and the hand retained until the uterus contracts. . .

"In the treatment of this accident, [great inversion,] the great object to be constantly kept in view is to attempt the reinversion as soon as possible after the occurrence. But in general the placenta adheres to the inverted organ, and the question is whether it should be separated or not before or after the reduction. It is an important point to settle, especially as there is such a difference of opinion upon the subject. . . . The dread of hemorrhage is the reason assigned why the placenta should not be first detached, but the writer trusts that the cases he has adduced, and the references he has made, are sufficient evidence to the contrary. In no case has this dreaded effect been induced, or even aggravated, by a *complete* separation of the placenta. The uterine vessels are as effectually constricted under this accident as when the organ is in its natural situation, if the placenta be entirely detached; and flooding is produced here, in the same manner as in ordinary cases, by a partial separation or disruption. As the greatest disadvantage arises from failing in our first attempt, it is the more necessary that every impediment should be removed, so that we can proceed with the greatest chance of success. By delay, the organ becomes less fit to bear the operation, not only from the increased size of the fundus and the contraction of the os, but also from the increased sensibility and irritability which it has acquired, even previously to its becoming actually inflamed. The attached placenta must increase the obstacle, because the fundus cannot be so freely and sufficiently compressed. The result of free manipulation would lead to partial detachment and disruption, and consequently to flooding. By detaching the placenta, great advantages are gained; the bulk of the part is diminished, the operator is enabled further to reduce the size of the fundus itself by compression; and he has more freedom to judge of the changes he has effected. . . .

"When the placenta is detached, our next object should be to attempt the reduction of the general bulk of the tumour, by compressing it. We are indebted to Mr. C. White for this method. The plan recommended by some writer, to push the fundus directly upwards, should not be adopted. There are strong reasons to think that the fundus is, after the os uteri, the most irritable part of this organ. When the accident has existed a short time, pressure upon this portion induces pain, bearing down, and hemorrhage; but the body may be taken hold of, and compressed. If we could press the fundus upwards, and thereby dimple it within itself, we should find ourselves opposed by a double inflexion; for the body would be grasped by the os uteri, and the fundus would be within the body. It is obvious that our force should be directed so as to act upon the angle of inflexion, or where it turns into itself.

"It will be found that the tumour will freely pass through the os externum, and, as only one hand can be admitted into the vagina, the chief compression should be effected whilst it lies externally. And, as the upper part of the vagina descends along with the uterus, no real effect can be produced until it is made tense by carrying this organ upwards. When it arrives at this point, resistance is met with; but, by keeping a steady pressure upwards, the inflected portion of the cervix then yields, and it gradually recedes, followed by the hand of the operator until the reduction is completed."—*Dublin Jour.*

BIBLIOGRAPHY.

A Brief Review of Dr. Horner's "Necrological Notice" of Philip Syng Physick, M.D. Philadelphia: 1838. 8vo: pp. 22.

THIS is the title of a pamphlet of twenty-two pages, which its author professes to be a review of the paper published in the 8th No., Vol. ii., of the *Select Medical Library, &c.* Having had an opportunity, through a copy sent, of its perusal, we shall claim the attention of our readers, for a time, whilst noticing this extraordinary production. A fly sheet at the beginning informs us, that some errors in the arrangement of sentences and words have been permitted to pass without correction, in order to save the time requisite for remodelling the review. Whether it was the reviewer's time which was the important consideration in this matter of a correct impression, or an eager desire not to delay to the community the benefit of his labours, is not stated with the precision that we could wish. The reviewer having withheld his name, our entire ignorance of the person, will therefore give others some right to assert for themselves, what he has claimed in his own case: to wit, not to doubt good intentions, but simply to advance the charge of want of skill, discretion, or information.* We also declare, like him, that we do not impugn his motives in, or question the sincerity of, his regard for Dr. Physick, but that our business is with the review, which its author admits to be "a hastily written production,"† a feature too evident to require his acknowledgment of the fact.

A remarkable omission in this pretended analysis of Dr. Horner's Notice of Dr. Physick is, that the writer, though calling it a *Review*, has not even stated whether the "Necrological Notice" is professedly a commendatory one or a deliberate libel on the subject of it. His readers, however, are left to infer the latter by these sentences:‡ "This is one of the many instances afforded by the biographer throughout his notice of his entire forgetfulness of the charge reposed in his hands."§ "There seems to have been a determination not to present he brightest side of a character, which had always been sustained throught the severest ordeal." Nor has the reviewer informed us that there is a single laudatory paragraph in the Necrological Notice, so that readers of the review who had not seen the notice itself, would infer that Dr. Horner, after living in known harmony with Dr. Physick, and with unqualified open admiration of his character and professional bearing for nearly thirty years, had all at once, and on an occasion calling specifically for the marked expression of his esteem, been so clouded in his affections and understanding, as not to know, in the slightest degree, what was due to his own consistency, and to his deference for that truly great man. The reviewer has, also, adroitly thrown the Notice wholly into a libellous form, by selecting from it passages which, in their original position, were sufficiently explained by their context, but which have been perverted entirely by insulation, and by the morbid interpretation which he puts on them. And to make this libel of his own creation more effective, he furnishes in his own language a summary or synopsis of it, at page twenty one, which exhibits a most remarkable strain of perverted imagination, and series of arbitrary conclusions.

After this exposition of the general tendencies of the review, we shall now take it up more in detail; and proceed to show that, with the use of Johnson or of Webster's Dictionary—consultation with a discreet medical man, and that indispensable aid "Time," of which the reviewer was deprived for the mature reading of the Notice, and to make his reflections thereon—we shall proceed, we repeat, to show that his gaze might have become accustomed to the "brilliantly incomprehensible"‖ passages of the Necrological Notice. If he had examined it with deliberation, he would have changed his mind about its complexion, and concluded that the discolouration was with himself, and not with the author: Or he might have contented himself with the conclusion he had reached, that its faults were involuntary—the result of want of skill; and thus charitably undeserving of the time, which appears to be much occupied, and we hope to a more valuable purpose than in writing such reviews.

* Page 9. † Page 20. ‡ Page 8. § Page 4. ‖ Page 19.

In beginning with the "incomprehensibles," we may state that the life of the Author of the Necrological Notice has been spent in a technical routine, in which the necessity of a sedulous examination of facts, has precluded all aim at brilliancy. But whilst we speak to the charge of incomprehensible, we would disclaim for the author the prefix brilliant, in whatever sense it was used by the reviewer, unless in that of *lucus a non lucendo.*

The first of the "incomprehensibles" for which a meaning is solicited, is the title, Necrological Notice. Our friend, Noah Webster, defines Necrological as pertaining to, or giving an account of the dead; and as his Dictionary is not confined to the halls of Philosophy; the term is not very far fetched, it may be found even in the primary schools. But in regard to its currency we may state, that it is the practice of literary and scientific bodies on the death of a member, to request from some one of their number a "Necrological Notice" of the deceased. This notice may be written and merely deposited in the Archives of the Society, or it may be the subject of an oration: it remains with the society to determine on either course. On the demise of the celebrated Dr. Wistar, his friend, the Abbé Correa, handed in to the American Philosophical Society a French composition, styled by him "*Note Necrologique*" which is remarkable for its graphic delineation of the deceased, as well as for the reflecting powers of the author.

The second "incomprehensible" is the term "sardonic smile," which according to the reviewer means a *forced, insincere* one; but sardonic being derived from the herb sardonia, our friend, Noah Webster, has very properly defined it to be *convulsive—involuntary* laughter; the convulsive motions of the lips and cheeks resembling such as are produced by the use of that herb. In regard to the general currency of this term: there is certainly none more fully authorized by medical and literary use, or of which a more novel conception could be instituted than that it meant its opposite—a *forced, insincere* smile. We would recommend our reviewer to the French Academy: his invention of so remarkable a novelty, deserves the patient discussion which that learned body extends to new words, and to new meanings especially such as contradict old ones. We hope, with all due respect, that this philological effort is the result of mature reflection, and not a chance production of haste.

Other "incomprehensibles" are the dogmatic points of theology, &c. An attempt at a full solution of this part of the enigma might make confusion worse confounded: we therefore limit ourselves to say, that as the Dictionary is still a useful book we reply in its sense, that dogma means an established or a received principle, a doctrine or creed. Dogmatic theology includes not only the simple and elementary religious truths; but also the doctrines and opinions held at various times by Christian churches. Not to fatigue the reviewer, we would content ourselves with referring him on this subject to Muenscher's Elements of Dogmatic History.

Other criminations will now be examined of the "*Necrological Notice,*" that obscure, unusual, and offensive term, which has every where in the review the inverted commas affixed to it, as if to show its suspicious character, like the word Poison, written by the apothecary on a bottle of family medicine, to admonish that none but the initiated ought to dispense it.

The Necrologist has scandalized the Reviewer, by mentioning among the unquestionably fine points of Dr. Physick's person, that his ear was not one of them. As to his foot, we incline to think that there was a real mistake in Dr. Horner's notice of it, owing to this member being commonly well, and loosely covered. But how are we to meet such sensibilities? The son-in-law of Sir Walter Scott has furnished a long account of that celebrated writer's lame foot, which was the result of disease. Lord Byron's acknowledged admirers have done the same for his lame foot, which was congenitally so, and which they state he was very sensitive about, and particularly careful, when seated, to place behind the other. John Hunter, the surgeon, had a stiff thumb. Now, in regard to Dr. Physick, we do not believe that he ever cared about his ears, though the fashion in which he wore his hair concealed them; and we believe that if he had met with persons who felt uneasiness about the shape of their ears, he would at once have said: "Look at mine; they have executed their office for me, which is all I require of them." He was certainly in the habit of assuaging the distress of his patients by alluding humorously or otherwise to his own infirmities, to show that the former were not solitary in their afflictions. In lecturing on Anatomy, he showed, with great good humour, and to the amusement of a class of four hundred students, the command which he had over the cutaneous muscle of the neck; a control not held by one in a hundred.

A description of personal peculiarities is unquestionably one of the objects of a biographical notice, and does not imply any want of regard for the object of it. The examples to this effect are too numerous to be denied. The most renowned of modern naturalists, the Baron Cuvier, and who was so often selected to deliver commemorative eulogies on departed worth, in a notice before the French Institute of the philosopher Count Rumford, was not only thus minute; but he informs us, that one of the peculiarities of the deceased Count was his being so economical of the materials, and also of the powers of digestion, that he ate no meats but such as were *roasted*. Here then are two great men: one regulated by, and another commemorating, what appears to be a nursery trifle, unless its value be tried by the proper scale. We may ask the reviewer, what apology has he to offer for his want of candour, in separating from a long paragraph of laudatory matter* the only phrases which could be rendered a doubtful praise by such separation, and presenting them as an embodying of the sentiments of the Author of the Notice?

Equal injustice is done in the reference to Dr. Physick's known fondness for practical mechanics. The statement of the boyish exercise of, and of the predilection for them, through life, is by the reviewer asserted to mean, that Dr. Horner informs his readers that Dr. Physick was by inclination a shoemaker or a silversmith; and this sapient inference is reached in the midst of page after page in the Necrological Notice, in which are exhibited Dr. Physick's extraordinary qualifications for the profession of medicine, and his signal contributions to it. So far from his mechanical turn derogating from the just estimation in which he was held, it is notorious that it was considered one of the most felicitous features in his character of surgeon; and that, through its astonishing fertility of invention and of application, he made cures where every one else failed. The allusion to the Doctor's mechanical turn accounts for a great deal in his professional life, and the value of the statement in the Necrological Notice is to be measured by that scale.

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* Page 23.

The mind of the reviewer seems to be singularly unfurnished with parallel instances in history, on all of the points of character in Dr. Physick to which the author has alluded. With more information, it would have occurred to him that John Hunter was apprenticed to a cabinet maker; that David Rittenhouse worked in the fields with plough and hoe on his father's farm, and when a boy made a wooden clock; that James Ferguson attended to sheep in the field when a boy, and also constructed a wooden clock. Thus, when we read of the first being the author of the celebrated Treatise on Inflammation—the second the maker of Orreries, the observer and calculator of the transit of Venus, in 1769, which will give him celebrity to the end of time—and the third, author of the Astronomical Tables, &c.; in the estimate of these three great men we always look on their youthful acts as the germinations and subsequent aids of their genius. We will make a still larger vindication of the claims of mechanical talent to respect at whatever age it is displayed. A survey of our city at present shows, that there are no more copious streams of *honour* and wealth than those derived from mechanical work. It is only within a few days that we have seen a notice of a second locomotive being ordered, and on its passage to Austria. The fabric of the youngest of nations going to one of the most advanced in arts and civilization! But still farther: mechanical suggestions and combinations so largely and frequently occupy the human mind, that in some systems of philosophy their origin has been referred to a special faculty: In fine, the reviewer, by determinately making strange of every thing, exhibits so clearly the excess of writing over reading, that we may fairly conclude his own mental horizon, to be the limits within which he took the materials to furnish his pages.

The reviewer appears also to be in great dudgeon at the account of the interview between the celebrated John Hunter and his pupil young Physick; but we are left to conjecture the manner and degree of criminality of the account—whether it was the effect the ideas of it created on the vision and olfactories of the reviewer, or whether it was the incongruity of a great surgeon and anatomist directing his pupil to follow in the steps by which he himself had been led to the highest elevation of medical science. His wrath explodes more distinctly in the same paragraph, when alluding to the Essay *De Apoplexia*, because it is not expressly stated that Dr. Physick himself put it into its Latin dress. In regard to this essay no one acquainted with Dr. Physick's qualifications for medical investigation will think, upon reading it, that he put them to the test on the occasion, or made it an elaborate effort; and it is sufficiently clear that it was not the intention of the Necrologist to excite a doubt of his writing it in Latin, but merely to state that if a question should arise on the subject, he had no positive testimony to bear on the inquiry. To any person at all acquainted with the history of graduation in the Edinburgh school, a question of this nature would excite no surprise. The honourable allusion in the Necrological Notice* to Dr. Physick's classical acquirements, and to his classical predilections up to the day of his death, if it had been considered, as it obviously was, the fair context for a reviewer to judge by, would have saved the declaration now distinctly made; that Dr. Physick could, it is believed, at all periods of his professional life have written a Latin essay in a chaste, elegant, and scholar-like manner.

The circumstances of the Doctor's outfit have also excited the sensibilities of the reviewer; and from the difficulty of their interpretation are among the "incomprehensibles." The Doctor had so little reserve on this subject himself, and considered it so great a lesson of industry, that there are probably hundreds of young physicians whose despondency he has attempted to relieve, by telling jocularly how he himself started. Industry, perseverance, was his saying to all; and as to the smallness of a man's beginning, the less it was the more it excited his admiration at success.

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* Page 8.

Dr. Horner* informs his readers that Dr. Physick was particularly intolerant of opposition and of disingenuousness on the part of a patient. The text stands in that relation, followed by some illustrative occurrences. But the reviewer has detached the first idea from the second, and given the following interpretation, "You (Dr. Physick) are very irritable and intolerant of opposition; even the legitimate exhibition of maternal solicitude will cause an outbreaking of your temper." This fabrication of words and sentiments by the reviewer is passed off as the purport of the narrative of an author who has declared, that Dr. Physick discharged most conscientiously his duties to patients, and watched them with a vigilance and anxiety which never remitted till their fate was ascertained, and that he was the most perfect example of a surgeon that this country has ever seen. What, Mr. Reviewer, has become of those sentiments of justice and moderation professed so repeatedly in your production? We will, however, for your special satisfaction, give a key to the phrase which has excited you so much. It is well known to medical men that firmness and decision are the characteristics of a high order of medical genius; and that a physician, thus endowed, feeling the great responsibility devolving upon him, in dangerous cases, must either have his advice observed, or he will not remain in attendance. He considers the alternative indispensable to his sense not merely of dignity but of duty. Now Dr. Physick came up precisely to these conditions; and no one, we believe, in latter years expected him to attend on any other terms, so fully was this principle settled by his acts, as well as by the approbation of his profession. This is precisely the intolerance exhibited in the little illustrative anecdotes introduced by the author of the Notice.

The opposite of this dignified course we shall give in another anecdote. A courtly doctor, when attending one of the princesses, was asked by George III. if he did not think a little ice might benefit her. "Your majesty is right," was the reply, "I shall order some forthwith." "But perhaps it might be too cold," added the kind monarch. "Perhaps your majesty is right again; therefore her royal highness had better get it *warmed*."†

A mere playful allusion to Dr. Physick's notions of French medicine, is made by the reviewer a ghost of the first magnitude, with the following label on his forehead: "You (Dr. Physick) can never have enlarged views of professional subjects, because you are bitterly prejudiced against a nation (France) [the French] the most distinguished in the world of science, and you will take no hint from her [it]." In rebuke of this aspersion of the reviewer's own invention and language, he furnishes a letter which its illustrious owner did show to the author of the Notice, and did on the occasion express his pleasure at; notwithstanding the reviewer's assertion that the author of the "Necrological Notice" was not one of those with whom Dr. Physick conversed on the subject.

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* Page 22.

† Curiosities of Medical Experience, page 157.

French medicine had made no strong impression in this country prior to the year 1820: it was later even before its value was felt in Great Britain. The allusions to it by the writers and teachers in the latter country, had been generally censorious and disparaging, the evident result of strong national antipathies. The same sentiments had been, owing to our descent, largely incorporated with the medical mind of the United States. It is, therefore, simply an historical fact; notorious, but accounted for by the circumstances of the period of their education, that the older physicians of this country did not appreciate French authorities in medicine; and many do not to this day. Dr. Physick might, therefore, without any disparagement to his general merits, be quoted as under the influence of the impressions of early life on this subject; notwithstanding the evidence furnished by the reviewer's visit, on which occasion he was found surrounded by French medical periodicals. An incidental allusion to English nationality is, also, a subject of crimination, though the point is so fully acknowledged as to have been noticed in all parts of the world, and on many occasions humorously dramatized, even by their own writers.

The grand assault upon the Necrological Notice was reserved for the discussion on Dr. Physick's religious or theological views. It is here that the "brilliantly incomprehensible" shines in its utmost darkness of lustre, according to the reviewer; and notwithstanding his admission of the impenetrable ideas with which the notice was thronged, so as to "defy criticism," and the consequent inconsistency of his reaching a conclusion under such an admitted chaos, he tells us that the "biographer (necrologist) has charged our departed surgeon with *infidelity* of the darkest character, and at the same time attacked religion itself." The extracts which the reviewer has made, being limited to such as suited his postulate, he has left from the middle of a paragraph the qualifying context: "With strong sentiments of *piety*, he (Dr. Physick) was constantly in a state of anxious *vacillation* in regard to the Christian faith." He has afterwards dressed up in italics, "he was repelled from it by the invincible principles of his own mind—it was an incomprehensible code to him, and so it continued to the last." We now ask, does the reviewer mean to say that Dr. Physick comprehended the mysteries of the Christian faith? Does the enlightened reviewer himself understand the nature of the Trinity? How a sacrament is effectual for the purpose under which it was instituted? How the unequal lots of men in regard to health and comfort is consistent with justice in the Almighty? How it is likewise consistent with impartiality, that it has been his purpose from all eternity to elect a portion of the human family out of mankind, and bring them to everlasting salvation? Or does he comprehend any other of those august principles, which are intended to define the relation of man to his Creator, and require faith to make them be received. Nothing was said of Dr. Physick's final reception or rejection of Christian doctrine, simply as a matter of faith. The highly estimable and learned clergyman who attended his last moments could give the best testimony on this subject, and declare to what extent his tormenting doubts were solved. The evidence of his relation is certainly to be relied upon for the period indicated; and if applicable at the moment of his death, shows that his difficulties were all removed. This consummation we have reason to believe has been withheld, in the wise dispensations of Providence, from some of the most pious men that ever lived, but who, in the estimation of our reviewer, ought to be stigmatized with the opprobrious term of *Infidel*, because a celestial grace, the absolute and free gift of the divinity, has been withheld from them. We refer this topic, however, to the theologians. The facts are notorious, that Dr. Physick's mind, for many years before his death, was in a state of great anxiety; that he talked with every body capable of instructing or comforting him on religious subjects, and that he underwent trials from which the Saints themselves have not been exempted. The principal object of the author of the Notice was, evidently, not to bring out things hidden in a corner, but by displaying such as were well known, to elucidate them by the lights of the original faculties, and of the acquired habits of a great man. Precisely the same course of trial and uncertainty is so common in the history of the human mind, that nothing but the susceptible imagination of the reviewer could have extracted from it the momentous consequences of infidelity, and an attack upon religion, more fearful than that of Paine or Hume. We would say: Compose yourself, Mr. Reviewer; the fair fabric of Christianity, which, when its foundations on earth were yet imperfectly cemented, bore without shock or break, the secession and fierce assaults of a Roman Emperor, will stand without the aid of the eminent men of any country. And, on the other hand, as to Dr. Physick's character, it is of such excellent composition, that it would bear the misconceptions of twenty Necrological Reviewers.

To conclude with this part of the Necrological Notice and its reviewer.—A mind less predetermined than his, on some ground best known to himself, could, according to our understanding, scarcely have adopted any other general conclusions, than that a comprehension of the mysteries of the Christian religion is one thing, and belief in them another; and that if belief awaits the comprehension, it must be unavoidably postponed during life. If on the contrary the grace of belief is conferred, any rational period of life is suitable for its profession and active enjoyment.

The allusion to the directions of Dr. Physick in regard to his interment, and to the feebleness of his last days, has also excited the reviewer against the remarks and explanations of the author of the Notice. We could ask: since when has it become criminal to attribute irregularities of disposition to the languor of illness and of age? Does not the whole chapter of human life, in every age, point out these consequences to great and to small? Does not the sacred volume constantly speak of them? Does not the pulpit resound with them? Can we shut our understandings in any way to them? Is it not a lesson to all of us, that even the gifted Physick yielded to these influences? And can any one attach shame to him for having been bent by one of the most universal laws of his Creator, at the age of three score years and ten,—a period when, to most men, their strength is declared to be but labour and sorrow. The writer of the review has, however, such a singular aptitude at discovery, as to have ascertained that Dr. Horner "attempted to affix a stain upon the memory of Philip Syng Physick," by stating that he, the deceased, like the rest of mortals for generations since the creation, had yielded to his destiny. The reviewer, with his usual candour in the selection of sentences, does not however let us know that there is one* in the following words: "surely to the intelligent no apology can be wanting for the infirmities of age and of illness."

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* Page 28.

But an entire vindication of the allusion exists in the circumstances of that period, which, with a very small inquiry or concession of charitable judgment on the part of the reviewer, would have been evident to him.

Dr. Physick's distinction attended him even in the retirement of a sick chamber; and he paid the customary tax, in some of the incidents of the latter being noised abroad, and imperfectly, we may say injuriously, understood by the public, even at distant points of this country. Two large bodies of strangers then in the city—the state convention and the medical classes—participated more or less in the rumours of the day, and of course would convey their impressions throughout the United States. But an explanation of the feeble health of Dr. Physick, afforded an abundant apology for every thing evincive of eccentricity or inconsistency. An enunciation therefore of the fact by the author of the Notice, was a vindication prompted alike by friendship and justice, and not an aspersion. It divulged nothing but what was current in regard to his state of mind and the disposition of his person, and it afforded the best possible explanation of their seeming inconsistency, with the man of genius whom the public had respected so much. Any other view, especially that suggested by the critic on whose animadversions we are now commenting, would have placed Dr. Physick in revolting contradiction with his own long professional life, and have made one class of his observations and inquiries in it a cause for censure, in place of their being, as they are commonly regarded, one of legitimate boast and honour.

We join cordially with the reviewer in deploring the absence of a pen so able as that of Professor Chapman to do justice to the merits of Dr. Physick. His admitted and distinguished talents are both adequate and appropriate to the task; and we look for its accomplishment with interest. Any conjectural comparisons of what this performance would, or will be with the Necrological Notice must be unreasonable and unnecessary. The author of the latter only desires that he may be understood and correctly represented. If, however, the rules of fair interpretation be neglected, his abundant respect for the memory of his deceased friend, Dr. Physick, will, we vouch, prompt him in some form, to put the author of such perversions and his readers right. Of his capacity to do the latter we have some confidence: and would therefore request of the writer of the Brief Review, that both publications may be equally distributed. For this purpose an exchange of copies—we speak advisedly—may be very properly made, without any abatement of the sentiments of comity professed on both sides of the argument. It must certainly be disagreeable to the author of the Necrological Notice, to be held up to the public as the promulgator of sentiments which he never entertained; and still more so when taken in connexion with the last office to a deceased friend, especially after its discharge received the approbation of gentlemen of discriminating judgment, who heard it read, and whose attachment and veneration for the memory of Dr. Physick had been settled by years of probation. The author of the notice may, however, obtain consolation from the reflection that the strange misconceptions of the reviewer being real, and not affected, there are possibly other minds susceptible, more or less, of the same disturbance,—and if there were only half a dozen such, Dr. Horner, we are sure, would think his time well spent in dispelling their illusions, and in asserting that his fidelity to the memory of a great man is unshaken. He conceives himself to be one of the conservators of that memory; and his efforts, however imperfect, will not be wanting during his natural life to do justice to and perpetuate it after his death; and he believes, moreover, that this memory, if properly preserved now, will make one of the primary elements in the history of American Medicine, when we become old as a nation, and a recurrence is had to past times for the elucidation of the state of that science.

As to the concluding paragraph of the review, we conceive its sentiments to be precisely the deductions from what occurs every where in the Necrological Notice; but, unhappily, their premises either did not reach the eye of the reviewer in preparing his "hastily written production," or perhaps being also among the "brilliantly incomprehensible" parts of the notice, dazzled his gaze into obscurity. A captious accusation of many trivial parts of the Necrological Notice, must be evident to every one who has read it and the Review; but the intentions of the reviewer in these respects we forbear to impugn, as we are disposed to receive in good part his declaration that he has no disrespectful feeling to the author. Still, we must assert, that the construction of every part of the review looks forced and insincere—we would say "sardonic," in compliment to the reviewer's new light on the meaning of that word, but that our readers might not understand us.

An Essay on Scarlatina. By James Conquest Cross, M.D., Professor of the Institutes of Medicine and Medical Jurisprudence, in the Medical Department of Transylvania University. Pp. 48: 8vo.

Dr. Cross, in the essay as above entitled, begins by criticising, as we think justly, the injudicious division of scarlet fever into three species, viz: *Scarlatina simplex*, *anginosa*, and *maligna*; and the common oversight in not making a proper distinction between the primary and fundamental lesion of which scarlatina consists, and the secondary lesions, which convert it from a simple into a complex affection. It must be confessed, however, that it is easier to take note of the secondary lesions than to say wherein the primary one consists. This latter, according to the author of the essay, is cutaneous inflammation. With deference, we think this is rather a prominent symptom, a troublesome effect, than a primary cause. In holding this opinion, one need not contend for the anginose affection being the essential lesion;—a position which Dr. Cross combats, to our mind, successfully. But although a morbid state of the fauces and tonsils is not a primary element, it may be regarded as commonly a part, or one o the first effects of the primary irritation, which last we believe to be in the gastric and mucous membrane, in the more distinct variety, and in the tracheo-bronchial mucous membranes, in that of a more complicated and aggravated one. As in every membranous disease, so in scarlatina, the irritation may be transferred to the brain; or, to speak less equivocally, act at once with such power on the brain and nervous system at large, as to oppress it beyond reaction and recovery: and death will ensue without our being able to find in the organs or their tissues any adequate evidence of lesion, or of new formations, by which we can assign a plausible reason for the fatal result.

The fact of the presence of lesion in the respiratory passages, and of its being the [an] immediate cause of death, are distinctly affirmed in the essay, and are enforced by the evidence of various authors.

A brief critique might be made on the division of his subject, by Dr. Cross. He gives, under a sub-head, the "APPEARANCES ON DISSECTION; and, subsequently, another sub-head, "PATHOLOGY." If pathology be that branch of medicine which teaches us a knowledge of the causes, signs, seats, and effects of diseases, one expects that morbid anatomy, by which the seats and some effects of scarlatina are more distinctly revealed, should come within the domain of pathology. An opposite and less venial error is gaining ground among some of our writers nearer home. It is, to speak of the pathology of the disease as synonymous with the lesion of the organs, or, if the case be fatal, of the *post mortem* appearances. This narrow and imperfect view has, we fear, served to indispose many from studying pathology, and even made them look with complacency on their attention to diagnosis and prognosis, as if these were actually subjects in broad contrast with pathology, in place of their belonging, as they do essentially, to this highly important branch of medicine.

The several modes of practice pursued in scarlatina are pressed in succinct review by the author of the essay, under the head of "TREATMENT." Conformably with the importance that he more especially attaches to certain pathological features of the disease, which consist chiefly in irritation and subsequent inflammation, and morbidly increased and accumulating secretion in the bronchial mucous membrane, Dr. Cross lauds the employment of ipecacuanha, used as an emetic in the beginning, middle, and end of *scarlatina.* The generally alleged effects of vomiting are described; and the cause of a recourse to it, in the diseases under notice, is to be found exclusively in the condition of the respiratory passages. "If they are but slightly disordered, it need not be frequently induced; but if there is serious obstruction, it will be necessary to use them assiduously and often." "Though emetics are decidedly useful in the management of secondary lesions, they are certainly much more efficacious in preventing them. They effectually clear the air passages, secure the complete arterialization of the blood, and thus prevent debility and the formation of local determinations and congestions." "The stage of the disease should not be considered an argument against the use of emetics. Respiration may be already very much oppressed, local lesions may have already formed, and debility may already prevail to a considerable extent; and yet we should not be deterred from their prompt and decided use." "There is more danger in too little than in too much vomiting. I have, in a great number of instances, given as many as from four to eight emetics in twenty-four hours, and so far from doing harm, I have invariably had every reason to be satisfied with the result. To my own son, then but eight months of age, I gave no less than nineteen emetics in three days and a-half, with a success which, under the unfavourable circumstances of the case, I confess was not anticipated."

Most physicians would, probably, join in the confession of the author, expressed in the last sentence which we have quoted; and many might be found to make the captious remark, that children who could bear this course of iterated vomiting were proof against the most violent attacks of scarlatina. With the common, but sincere, delusion of discoverers or innovators in any way, Dr. Cross now regards "the disease as in a great measure divested of its former terrors," since his "main reliance has been in ipecacuanha." He says, "My success, if it has not surpassed, has at least equalled that of any other physician of whom I have read, or with whom I am acquainted." Specifications of his success, in numbers, are subsequently given. Should the author be called upon to treat patients with scarlatina, in one or two future visitations of the disease, he will, we fear, like so many others, and we include ourselves among the number, have cause to modify not a little this present tone of confidence.

It will have been seen that Dr. Cross gives a decided preference to ipecacuanha, over the other two emetic medicines which he mentions, viz: tartar emetic and *sanguinaria canadensis.* He objects to tartar emetic, if repeatedly used, to produce the effect which he advocates of frequent vomiting, that it causes such a relaxation and severe discharges, when thus used, as would prostrate without being productive of any commensurate advantage. To some other of its effects, urged by the author, the facts adduced by Bayle are directly opposed; and we are not warranted, in the present state of our knowledge, especially after noting the practice of counter stimulus, in which this medicine has been so largely and even prodigally given, to coincide with the language of Dr. Cross, that "tartar emetic is a powerful irritant: and if given in any disease where there is a tendency to gastro-enteric congestion, it will be certain to produce it; and by its injudicious repetition, gastro-enteric inflammation will result."

The following sentence is introductory to an enumeration of the other remedies employed in the disease, and of their relative value and application: "We have spoken of vomiting in terms of such warm approval, that it may be thought we rely upon it exclusively. This would be a great mistake: for, although we have a confidence in ipecacuanha that we have not in the united powers of all other remedies, we have considered it judicious and safe to make such use of certain adjuvants as we have, by experience, found useful." *Cataplasms* are alleged to be entitled to a conspicuous place. A common wheat bread poultice, impregnated with mustard or pepper, is the form usually employed by Dr. Cross. But when he adds, "It should be kept constantly applied; not venturing to omit its use for a single moment; nor should one poultice be suffered to remain on until it has become cool, before another of a suitable temperature is substituted in its place," we would venture to ask: of what texture must that skin be which can bear, without excessive irritation and disorganization, this uninterrupted application of mustard or pepper? No limits are assigned by the author to the duration of the practice. It may be for one day, two or three days, or during the whole period of the disease, for aught we are told to the contrary.

Of *vesication* the author is not disposed to think favourably in the disease under notice; nor do we differ from him on that point. On *cold affusion* there is nothing new stated. Attaching, as we do, so much importance to this remedy in scarlatina, Dr. Cross's remarks seem to us to be less full and explicit than could be desired. The *warm bath* is next mentioned: and the circumstances which seem to indicate its use are stated. The remarks on *blood-letting*, in scarlatina, are clear and pertinent; except where the author specifies his favourite conditions—vomiting, the application of cataplasms and refrigerants; after which, if properly complied with, there will, he thinks, be little if any need for the general or local detraction of blood. Whilst he deprecates *active purging*, "recommended by Hamilton, Armstrong, and others, as useless and in many instances highly prejudicial," he admits the advantage of keeping the bowels open, and of the occasional use of a strong cathartic, in cases of congestion. *Gargles* he regards "as either useless or prejudicial."

If, in our brief remarks and comments on this paper by Dr. Cross, we have sometimes pointed out what we believe to be exclusiveness, we have also indicated, with sufficient clearness, its general scope and merits; and these are such as to entitle it to a careful perusal.

Health and Beauty; An Explanation of the Laws of Growth and Exercise: through which a Pleasing Contour, Symmetry of Form, and a Graceful Carriage of the Body are acquired, and the common Deformities of the Spine and Chest prevented. By JOHN BELL, M.D., Lecturer on the Institutes of Medicine, and Medical Jurisprudence, &c. &c. Pp. 253: 18mo.

THE objects of this work are sufficiently indicated in the title-page, as above. Of the manner in which the author has performed his task, it does not become us to speak in terms of laudation; and if, separating, for a while, the editor from the author, we were to indulge in a contrary strain, we might be more successful in obtaining credit from the public than from the publishers, for our candour. The latter have not thought it worth while to set off by the extrinsic aid of good paper and print, this little volume—the very title of which ought to have procured it more attention in these particulars. Though not addressed to the medical profession, all the members of it are intimately concerned in the topics of the present work: familiarity with which, can alone enable them to give, in season, the requisite practical advice, both for the prevention of many ills, and the securing of many comforts and true pleasures. Ready, with the requisite knowledge, and strong in his conviction, the physician ought not, through any timidity, or false notions of policy, to be deterred from early, regularly, and persistently urging on the attention of parents, all those observances by which health, strength, and free and easy movements of the body are procured for their children. There is no mystery or patent process in the matter. All that is necessary is, to protect, it may be to guide, but never to improve nor torture, nature, in her instinctive impulses and clearly defined wants.

The first fifty-six pages, and the two or three concluding ones, of this volume, were delivered in the form of a lecture, and had been written with such a view, before the *Athenian Institute* of this city, last winter. We mention this fact, as it will serve to explain some differences which may be observed in the style and illustrations, between the first and the remaining portion of the work.

Discourse on the Importance of a General Diffusion of a Knowledge of Anatomy, Physiology, and Hygiene. Delivered at the Auburn Female Seminary, May 30th, 1838. By F. H. HAMILTON, A.M., M.D.—Auburn. Pp. 20: 8vo.

To the other titles of Dr. Hamilton there ought to be added, Y.L.M. (Young Ladies' Man,)—a mark of distinction, be it noted, not derived from his being the ready servant at parties and balls, or in the morning lounge, of the youthful fair, but the legitimate reward of essential service done to them, by advice in the important matters of health, and with health, their good looks.

Among the innovations of this bustling and meddling, but yet timid, and for some important purposes of reform, cowardly, age, we cannot but regard that as one of great moment, which consists in teaching, as a part of elementary knowledge, to the young of both sexes, but especially of the other sex, the outlines of anatomy, physiology, and hygiene. By no other means, by no kind of persuasion, or force of argument—pathos or ridicule—can we hope to correct the pernicious and often destructive career of fashion, which makes sickly girls, and feeble if not deformed women, who are incapable of performing the part of mothers.

The design of Dr. Hamilton in his Discourse, is mainly to show the usefulness and dignity of the profession of medicine, and to inculcate distinctly sound maxims, by shewing the fallacies of quackery, under various titles. Were he not for the nonce in the service of the ladies, and of young ladies too, we should be inclined to tilt a lance with him on the subject of phrenology, which, in imitation of some others, whom we are obliged to regard as shallow reasoners and superficial observers, he classes with animal magnetism, homœopathy, and Thompsonianism. Dr. Hamilton's style of address is earnest and fervid. It might, perhaps, be alleged that more knowledge, by his auditors, of the various topics on which he descants, is taken for granted, than they can be supposed to possess. But this objection, if it really exists, is of little moment, when we bear in mind the general merits and the scope of the address. With the sentiments contained in the following extract we entirely coincide:

"I have chosen to preface this course with a brief outline of the value of a general knowledge of the sciences upon the investigation of which we are about to enter; and trust I shall be able fully to show that, whatever charlatanism or imposture has crept into the science or practice of medicine, it has not been because the science is not in itself important—nor because its pursuits are not exalted—nor because its guardians are not learned and intellectual; but that it is solely because the community themselves are wholly ignorant of anatomy and physiology, and all that pertains thereto; and that a general diffusion of knowledge upon these subjects will lead to the detection and exposure of empiricism, and add greatly to the stock of human happiness, by leading to the prevention of ten thousand maladies and accidents which befal us in consequence of ignorance of the laws of our own nature and organization."

The address is introductory to "a short series of lectures on the important sciences of anatomy, physiology and hygiene," delivered at the Auburn Female Seminary, which is under the charge of Mr. Hosmer; at whose instance Dr. Hamilton was led to undertake the task, which, as he informs us, was an entirely gratuitous one. We think the design of the principal, and the ready performance of the lecturer, creditable equally to them both; and we cannot but hope that the example which they have thus formally and authentically set, will be generally followed in institutions for education.

That there is a spirit of inquiry abroad, on these matters, is evident from many indications recently furnished. Amongst these, we may mention an announcement in one of the newspapers in an eastern town, that a Mrs. Gove will deliver lectures on anatomy—but to ladies only.

Annual Circular of the Washington Medical College of Baltimore. July, 1838: pp. 16.

This pamphlet contains a brief notice of the advantages enjoyed by a student of the Washington Medical College, in the unusual facilities and comforts for anatomical investigations and clinical practice, owing to the construction and arrangement of the building, and the contiguity of a hospital to it; or rather, from the fact of the latter being within the walls of the college buildings. The student has also the option of residing in the college, and enjoying all suitable conveniences. "The WASHINGTON MEDICAL COLLEGE OF BALTIMORE, and HOSPITAL edifice, are so constructed as to be under the same roof, and are situated in the highest and most pleasant part of the city. The building is large and commodious. The theatres are designed from the most approved plans, and are conveniently connected with the rooms used for the purpose of practical anatomy. In the dissection room care has been taken to provide space, light, and security, together with every convenience that may afford to the student facility in prosecuting to advantage this requisite part of his college studies. The hospital is in immediate connexion with the lecture rooms and the student's apartments, and has constantly within it a number of patients; and being one of the places selected by government, for the marine of the city, will be doubtless augmented: thus affording to the student superior advantages for clinical observation."

The Washington Medical College was incorporated, in 1832, by the legislature of Maryland. The Faculty is complete; and if we might venture an opinion, without the pleasure, (except in the case of one of them,) of personal acquaintance, we should suppose it to be an efficient one. Of the means for instruction placed at its disposal, the extract in the preceding paragraph gives a favourable, and, we doubt not, a correct view.

An Address; delivered at the Medical College of Georgia, on opening the Course of Lectures, 17th October, 1837. By PAUL EVE, M.D. Professor of Surgery, and Dean of the Faculty, Medical College of Georgia.

Dr. EVE's address is a comprehensive history of the origin and progress of the College of Georgia, with which are blended some remarks in favour of a southern school for southern students, and important suggestions for improvements in the system of medical instruction.

We learn that the charter for the college was granted in 1830. A Faculty was organized in 1832; and the first course of lectures delivered in the winter of 1832–3, to a class of twenty-seven students: four of whom were graduated at the first commencement. "At the last session, with but six professors, there was a flattering increase to forty-six—being a much larger class than has ever yet been in attendance here" (Augusta). The number who received the degree, last April, was fifteen.

The zeal, perseverance, and ability of the Faculty of the Medical College of Georgia, have already commanded the respect of their southern brethren, and will ultimately, we hope, ensure them high national reputation.

THE COMING YEAR.

The *third year* of the Select Medical Library will be begun with the publication of Dr. Williams's Lectures on the PHYSIOLOGY AND DISEASES OF THE CHEST. Those on the Diseases of the Lungs, including Consumption, are already printed; and those on the Heart are in press, and will, ere long, be concluded.

The following original works will be published, for the first time, in the Library; for which, expressly, most of them are in course of publication, viz:

On the YELLOW FEVER, as it has appeared at different times in PHILADELPHIA; comprising its *Pathology* and *Treatment*, and the *Statistics of the Disease*. By a Physician of Philadelphia.

ORTHOPŒDY: An Essay on the *Congenital* and *Acquired Deformities* of the *Human Body;* and on their *Treatment*, with special reference to the Aids derived from *Surgery*, *Mechanics*, and *Gymnastics*. By Joseph Togno, M.D. To be illustrated with Engravings on Wood.

HISTORY OF AMERICAN SURGERY; its *Discoveries* and *Improvements*. By John R. W. Dunbar, M.D., Professor of Surgery and Surgical Anatomy, in the Washington Medical College of Baltimore. To be illustrated with Engravings on Wood.

A PRACTICAL TREATISE ON VENEREAL DISEASES; or, a *Critical* and *Experimental Inquiry* into *Inoculation*, applied to the Study of these Diseases, followed by a *Therapeutic Summary* and a *Special Formulary*. By Ph. Ricord, M.D., Surgeon to the Venereal Hospital at Paris, &c. &c. Translated from the French, by J. B. Biddle, M.D.

On the DENGUE FEVER, as it appeared some Years ago in the *Southern States*. By S. Henry Dickson, M.D., Professor of Institutes and Practice of Medicine, in the Medical College of the State of South Carolina.

Essay upon the Question—Is MEDICAL SCIENCE FAVOURABLE TO SCEPTICISM? By James W. Dale, M.D.

Also, LECTURES ON BLOOD LETTING. By Henry Clutterbuck, M.D. Nine of these Lectures, published in the London Medical Gazette, have been received.

We regret that we cannot comply with the request so courteously made by a Georgetown correspondent, without subjecting ourselves to unnecessary subsequent inconveniences, by our Journal being made the arena for controversy. In quoting a passage from a work accusatory of another to which it is a reply, and simply as illustrative either of its spirit or scope, we do not make ourselves parties to the dispute, nor give our assent to the correctness of the affirmation, or denial, as the case may be. Were we to insert even the short, and, what seems to us to be, pertinent comments by our correspondent, on one particular charge made by a work, itself critical, on another, we should throw ourselves open to claims for the insertion of a reply, or a rejoinder, in which our readers might not take any interest, nor from which derive any instruction.

Whilst we fully appreciate the goodness of the motives by which our correspondent was actuated in sending us his brief strictures, we hope that he will do us equal justice in the construction which he puts on ours in declining to insert them.

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